

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTADEG1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPICI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAPLUS and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPICI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS	20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS	21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS	22	APR 28	IMSRSEARCH reloaded with enhancements
NEWS EXPRESS	FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008		
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		
NEWS LOGIN	Welcome Banner and News Items		
NEWS IPC8	For general information regarding STN implementation of IPC 8		

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:06:43 ON 08 MAY 2008

=> file registry

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 15:07:01 ON 08 MAY 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 7 MAY 2008 HIGHEST RN 1019993-29-3

DICTIONARY FILE UPDATES: 7 MAY 2008 HIGHEST RN 1019993-29-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdnoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10775510genA.str



```

chain nodes :
1 2 16 17
ring nodes :
3 4 5 6 7 8 9 10 11 12 13 14
chain bonds :
1-2 1-17 2-3 2-10 2-16
ring bonds :
3-4 3-8 4-5 5-6 6-7 7-8 9-10 9-14 10-11 11-12 12-13 13-14
exact/norm bonds :
2-16
exact bonds :
1-2 1-17 2-3 2-10
normalized bonds :
3-4 3-8 4-5 5-6 6-7 7-8 9-10 9-14 10-11 11-12 12-13 13-14

```

G1:CH3,H

```

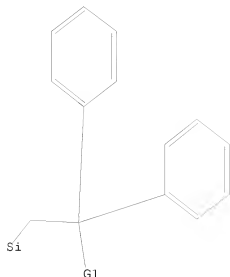
Match level :
1:CLASS 2:CLASS 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 16:CLASS 17:CLASS

```

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS  
L1 STR



G1 Me,H

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full  
FULL SEARCH INITIATED 15:07:34 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 6827 TO ITERATE

100.0% PROCESSED 6827 ITERATIONS 44 ANSWERS  
SEARCH TIME: 00.00.01

L2 44 SEA SSS FUL L1

=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
178.36	178.57

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 15:07:43 ON 08 MAY 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 May 2008 VOL 148 ISS 19  
FILE LAST UPDATED: 7 May 2008 (20080507/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> L2

L2 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s L2

L3 30 L2

=> d L3 1-30 abs ibib hitstr

L3 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB The Yb(II) hydride complex (DIPP-nacnac)YbH·THF (3-Yb, DIPP-nacnac  
= CH{(CMe)(2,6-iPr2C6H3N)}2) was prepared by a mild metathesis reaction of  
(DIPP-nacnac)Yb[N(SiMe3)2]·THF with PhSiH3. 3-Yb crystallizes as a  
dimer with bridging hydride ions, and its geometry is similar to that of  
the analog Ca hydride complex (3-Ca). 3-Yb is well soluble in benzene and  
remarkably stable in solution at room temperature. Ligand exchange to the  
homoleptic Yb(II) complexes takes place at higher temps. (3-Yb is less  
stable than the analog 3-Ca). The soluble hydride complexes 3-Ca and 3-Yb  
are catalysts for the hydrosilylation of 1,1-diphenylethylene, but  
differences in the product distributions are observed. Slow hydrolysis of  
(DIPP-nacnac)Yb[N(SiMe3)2]·THF gave reduction of H2O and unidentified  
Yb(III) complexes. Fast hydrolysis at low temperature, however, resulted in

the

1st Yb(II) hydroxide complex, (DIPP-nacnac)Yb(OH)·THF (4-Yb, 20%  
yield), which is a dimer with bridging hydroxide ions in the solid state.  
The crystal structure is isomorphous to that of the Ca analog 4-Ca. 4-Yb  
is well soluble in benzene and considerably more stable against ligand  
exchange and formation of homoleptic species than 3-Yb.

ACCESSION NUMBER: 2007:581030 CAPLUS

DOCUMENT NUMBER: 147:225397

TITLE: Syntheses and Structures of Ytterbium(II) Hydride and  
Hydroxide Complexes: Similarities and Differences with  
Their Calcium Analogues

AUTHOR(S): Ruspic, Christian; Spielmann, Jan; Harder, Sjoerd

CORPORATE SOURCE: Anorganische Chemie, Universitaet Duisburg-Essen,  
Essen, 45117, Germany

SOURCE: Inorganic Chemistry (Washington, DC, United States)  
(2007), 46(13), 5320-5326

CODEN: INOCJ; ISSN: 0020-1669

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:225397

IT 896100-18-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation from hydrosilylation of diphenylethylene catalyzed by  
ytterbium(II) and calcium bis(diisopropylphenyl)pentanediiimato  
hydrido complexes)

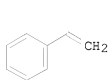
RN 896100-18-8 CAPLUS

CN Benzene, 1,1'-[2-(phenylsilyl)ethylidene]bis- (CA INDEX NAME)

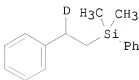
Ph2CH-CH2-SiH2-Ph

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

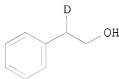
L3 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2008 ACS ON STN  
GI



I



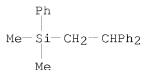
II



III

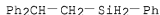
AB A regio-/chemoselective silylmatalation of various functionalized alkenes, e.g. I, based on the zinc silyl complex in the presence of a catalytic amount of copper cyanide was developed. Silylmatalation of alkenes, followed by electrophilic trapping, proved to be a powerful tool for the functionalization of the continuous carbon atoms of the alkenes. The resultant alkylsilanes, e.g. II, can be converted smoothly into alcs., e.g. III, by oxidative cleavage of the carbon-silicon bond.

ACCESSION NUMBER: 2006:1324372 CAPLUS  
DOCUMENT NUMBER: 146:228990  
TITLE: Regio- and Chemoselective Silylmatalation of Functionalized Terminal Alkenes  
AUTHOR(S): Nakamura, Shinji; Uchiyama, Masanobu  
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan  
SOURCE: Journal of the American Chemical Society (2007), 129(1), 28-29  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 146:228990  
IT 925207-60-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of  $\alpha$ -substituted alkylsilanes via regio- and chemoselective copper-catalyzed silylzincation and electrophilic substitution from terminal alkenes, and preparation of  $\alpha$ -substituted alcs. via Fleming-Tamao oxidation of alkylsilanes)  
RN 925207-60-9 CAPLUS  
CN Benzene, 1,1'-[2-(dimethylphenylsilyl)ethylidene]bis- (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2008 ACS ON STN  
 AB Clean conversion of conjugated alkenes with exclusive formation of one regioisomer is achieved by using a new class of hydrosilylation catalysts based on early main-group metals (Ca, Sr, and K). The regioselectivity can be switched to the other isomer through the choice of the metal and solvent polarity. E.g., solventless hydrosilylation of CH<sub>2</sub>:CPh<sub>2</sub> with PhSiH<sub>3</sub> in presence of 2.5% of homoleptic L<sub>2</sub>Ca(THF)<sub>2</sub> or L<sub>2</sub>Sr(THF)<sub>2</sub> (L = o-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHSiMe<sub>3</sub>) at 50° gave >98% conversion to PhH<sub>2</sub>SiCPh<sub>2</sub>Me, whereas the same reactions in THF gave >98% conversion to the other regioisomer, PhH<sub>2</sub>SiCH<sub>2</sub>CPh<sub>2</sub>.  
 ACCESSION NUMBER: 2006:451798 CAPLUS  
 DOCUMENT NUMBER: 145:103764  
 TITLE: Hydrosilylation of alkenes with early main-group metal catalysts  
 AUTHOR(S): Buch, Frank; Brettar, Julie; Harder, Sjoerd  
 CORPORATE SOURCE: Anorganische Chemie, Universitaet Duisburg-Essen, Essen, 45117, Germany  
 SOURCE: Angewandte Chemie, International Edition (2006), 45(17), 2741-2745  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 145:103764  
 IT 896100-18-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (regioselectivity of hydrosilylation of conjugated alkenes with early main-group metal catalysts)  
 RN 896100-18-8 CAPLUS  
 CN Benzene, 1,1'-[2-(phenylsilyl)ethylidene]bis- (CA INDEX NAME)



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2008 ACS ON STN  
 AB A siloxane compound having a high refractive index comprises at least 2 silicon atoms linked by oxygen and at least one silicon-bonded substituent of the general formula -(O)x-R'-Ar<sub>2</sub>, where R' is a divalent hydrocarbon radical, x is 0 or 1, and each Ar is independently an optionally substituted aryl group, and both optionally substituted aryl groups are linked directly to the same carbon atom in the R' group, except that when only one group -(O)x-R'-Ar<sub>2</sub> is present in the siloxane, either the siloxane contains at least 3 silicon atoms or, when the siloxane contains only 2 silicon atoms, R' equals dimethylene. The siloxanes have refractive indexes above 1.53 or even above 1.55 which is exceptional for traditional silicones. The invention also relates to siloxane-containing cosmetic compns., such as color cosmetic compns., lipsticks, nail

varnishes, mascaras, foundation creams, compact powders, hair colorants, hair dyes, and hair conditioners. Thus, 1,1-diphenylethylene (100 g, 0.55 mol) and tetramethyldisiloxane (40 g, 0.29 mol) were heated in the presence of a platinum catalyst at 100° for 2-3 h, raising the temperature to 128° over 5 h, and heating at 128° for 24 h to provide the resp. siloxane substituted with two diphenylethyl groups and having a refractive index of 1.5599.

ACCESSION NUMBER: 2005:14405 CAPLUS  
DOCUMENT NUMBER: 142:114269  
TITLE: Siloxane compounds having high refractive index for cosmetic applications  
INVENTOR(S): Butler, Derek William; Caprasse, Virginie Francoise Marie Juliette; MacKinnon, Iain Alasdair; Moloney, Grainne M.; Van Reeth, Isabelle  
PATENT ASSIGNEE(S): Dow Corning Corporation, USA  
SOURCE: PCT Int. Appl., 20 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000856	A2	20050106	WO 2004-EP11021	20040210
WO 2005000856	A3	20050224		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2003-2978 A 20030211

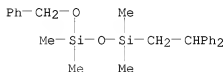
OTHER SOURCE(S): MARPAT 142:114269

IT 820207-12-3P 820207-13-4P

RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(siloxane compds. having high refractive index for cosmetic applications)

RN 820207-12-3 CAPLUS

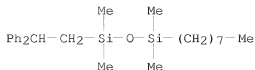
CN Disiloxane, 1-(2,2-diphenylethyl)-1,1,3,3-tetramethyl-4-(phenylmethyl)-(CA INDEX NAME)



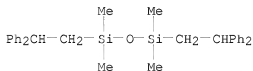
RN 820207-13-4 CAPLUS

CN Disiloxane, 1-(2,2-diphenylethyl)-1,1,3,3-tetramethyl-3-octyl- (CA INDEX NAME)

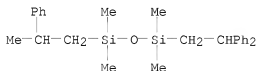




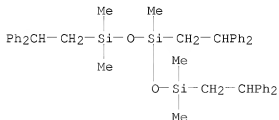
IT 820207-10-1P 820207-11-2P  
 RL: COS (Cosmetic use); IMF (Industrial manufacture); PRP (Properties);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (siloxane compds. having high refractive index for cosmetic  
 applications)  
 RN 820207-10-1 CAPLUS  
 CN Disiloxane, 1,3-bis(2,2-diphenylethyl)-1,1,3,3-tetramethyl- (CA INDEX  
 NAME)



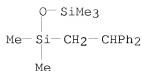
RN 820207-11-2 CAPLUS  
 CN Disiloxane, 1-(2,2-diphenylethyl)-1,1,3,3-tetramethyl-3-(2-phenylpropyl)-  
 (CA INDEX NAME)



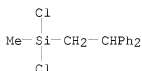
IT 820207-15-6P 820207-16-7P  
 RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (siloxane compds. having high refractive index for cosmetic  
 applications)  
 RN 820207-15-6 CAPLUS  
 CN Trisiloxane, 1,3,5-tris(2,2-diphenylethyl)-1,1,3,5,5-pentamethyl- (CA  
 INDEX NAME)



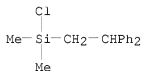
RN 820207-16-7 CAPLUS  
 CN Disiloxane, (2,2-diphenylethyl)pentamethyl- (9CI) (CA INDEX NAME)



IT 53888-97-4P 820207-14-5P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (siloxane compds. having high refractive index for cosmetic applications)  
 RN 53888-97-4 CAPLUS  
 CN Silane, dichloro(2,2-diphenylethyl)methyl- (9CI) (CA INDEX NAME)

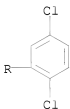
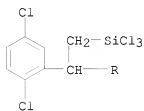


RN 820207-14-5 CAPLUS  
 CN Silane, chloro(2,2-diphenylethyl)dimethyl- (9CI) (CA INDEX NAME)

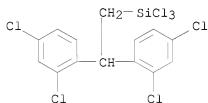


L3 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB (1,2-Dichloroethyl)trichlorosilane (2) reacted with a 6-fold excess of mono-, di-, and trichlorobenzenes at 120° in the presence of aluminum chloride to give regiospecific (2,2-diarylethyl)trichlorosilanes via a carbocation rearrangement. The yields were 61-69%, and regioisomers of (1,2-diarylethyl)silanes were not obtained. Alkylation of 1,2,3,4-tetrachlorobenzene with 2 did not give [2,2-bis(tetrachlorophenyl)ethyl]trichlorosilane or 9,10-bis(silyl)methyl-9,10-dihydroanthracenes but gave cyclic silyl-substituted indanes in 84% yield via the acid-catalyzed dimerization of β-(trichlorosilyl)styrene formed by the first alkylation, followed by dehydrochlorination. The structure of 1,2-trans-2,3-trans-4,5,6,7-tetrachloro-1-(2,3,4,5-tetrachlorophenyl)-2-(trichlorosilyl)-3-((trichlorosilyl)methyl)indane has been determined by x-ray crystallog. The desilylated product, 1,3-cis-4,5,6,7-tetrachloro-1-(2,3,4,5-tetrachlorophenyl)-3-((trichlorosilyl)methyl)indane, was reduced by LiAlH<sub>4</sub>, and its structure was also determined  
 ACCESSION NUMBER: 2002:582028 CAPLUS  
 DOCUMENT NUMBER: 137:279236  
 TITLE: Friedel-Crafts Alkylation of Polychlorobenzenes with (1,2-Dichloroethyl)trichlorosilane  
 AUTHOR(S): Han, Joon Soo; Lim, Weon Cheol; Yoo, Bok Ryul; Jin, Jung-Il; Jung, Il Nam  
 CORPORATE SOURCE: Organosilicon Chemistry Laboratory, Korea Institute of Science and Technology, Seoul, 130-650, S. Korea  
 SOURCE: Organometallics (2002), 21(18), 3803-3809

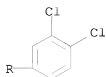
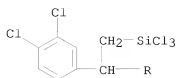
CODEN: ORGND7; ISSN: 0276-7333  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:279236  
 IT 256343-30-3P 256343-31-4P 464173-81-7P  
 464173-82-8P 464173-83-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 256343-30-3 CAPLUS  
 CN Silane, [2,2-bis(2,5-dichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX  
 NAME)



RN 256343-31-4 CAPLUS  
 CN Silane, [2,2-bis(2,4-dichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX  
 NAME)

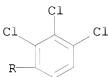
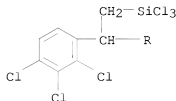


RN 464173-81-7 CAPLUS  
 CN Silane, [2,2-bis(3,4-dichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX  
 NAME)



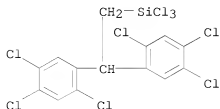
RN 464173-82-8 CAPLUS

CN Silane, [2,2-bis(2,3,4-trichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX NAME)



RN 464173-83-9 CAPLUS

CN Silane, [2,2-bis(2,4,5-trichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB Some mechanistic proposals are made for the competitive desilylation reaction affording the corresponding primary alc. and carboxylic acid that frequently occur in the bioredn. of acylsilanes. C-Si bond cleavage of bioredn. was modeled in reduction of acylsilanes mediated by water in the

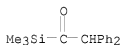
presence of montmorillonite K10.

ACCESSION NUMBER: 2000:716174 CAPLUS  
 DOCUMENT NUMBER: 134:17522  
 TITLE: A mechanistic study concerning the carbon-silicon bond cleavage in acylsilane bioreductions

AUTHOR(S): Patrocínio, Amauri F.; Moran, Paulo J. S.  
 CORPORATE SOURCE: Instituto de Química, Universidade Estadual de Campinas, Campinas-SP, 13083-970, Brazil  
 SOURCE: Journal of Chemical Research, Synopses (2000), (8), 404-405  
 CODEN: JRP5DC; ISSN: 0308-2342

PUBLISHER: Science Reviews Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 134:17522  
 IT 309929-02-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (attempted C-Si bond cleavage reaction mediated by water and montmorillonite)

RN 309929-02-0 CAPLUS  
 CN Silane, (diphenylacetyl)trimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

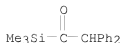
L3 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2008 ACS ON STN  
 AB The oxidative method for the hydrolysis of 1,3-dithianes was applied to 2-silyl-1,3-dithianes by using 4-6 equiv N-bromosuccinimide in aqueous acetone or MeCN, thus providing acylsilanes  $\text{RCOSiMe}_3$  [R = PhCH<sub>2</sub>, Ph<sub>2</sub>CH, Ph, 2-MeOC<sub>6</sub>H<sub>4</sub>, 3,4-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 3,4-(OCH<sub>2</sub>)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>, 3-CF<sub>3</sub>C<sub>6</sub>H<sub>4</sub>] with good (40-96%) yields in a short reaction period. The oxidation of arylsilanes to carboxylic acid was prevented by addition of bases and lowering the reaction temperature

ACCESSION NUMBER: 2000:545861 CAPLUS  
 DOCUMENT NUMBER: 134:147633  
 TITLE: Synthesis of acylsilanes via oxidative hydrolysis of 2-silyl-1,3-dithianes mediated by N-bromosuccinimide

AUTHOR(S): Patrocínio, Amauri F.; Moran, Paulo J. S.  
 CORPORATE SOURCE: Instituto de Química, Universidade Estadual de Campinas, Campinas, Brazil  
 SOURCE: Journal of Organometallic Chemistry (2000), 603(2), 220-224  
 CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier Science S.A.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 134:147633  
 IT 309929-02-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of acylsilanes by oxidative hydrolysis of silyldithianes with bromosuccinimide)

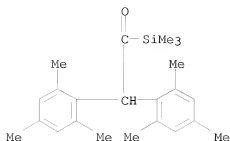
RN 309929-02-0 CAPLUS  
 CN Silane, (diphenylacetyl)trimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

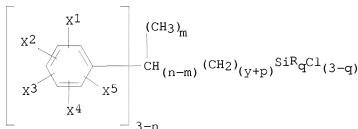
L3 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2008 ACS ON STN  
 AB The equilibrium consts. for the ionization of nine stable simple enols and of eight ketones were determined by the ion cyclotron resonance (ICR) method in the gas phase. From these pKa values, seven ketone-enol equilibrium consts. KEnol were calculated. The most acidic enol in the series Mes2C:C(OH)R (3) is when R = p-CF3C6H4 (AG °acid = 323.4 kcal mol-1) and the least acidic one is when R = t-Bu (AG °acid = 334.7 kcal mol-1). There is a good correlation between the AG °acid values for the ketones and the enols. For 4 α-aryl-substituted enols (R = Ar) and their keto isomers, there is a rough correlation with Hammett's σ values. The AG °acid's for the enols where R = Ar correlate linearly with their AG °acid's in hexane, but other enols deviate from the relationship. The pKa's and pKEnol values were calculated by RHF/3-21G\* and some values were calculated by B3LYP/3-21+G\*. The observed AG °acid's for the enols give an approx. linear correlation with the calculated AE °acid values. However, the AG °eq values for the keto-enol equilibrium in the gas phase or in hexane do not correlate linearly with AEeq for all the enols. The calculated Ar-C:C dihedral angles in the enols 3 change only slightly to modestly on ionization, presumably due to a relatively rigid geometry caused by steric hindrance. The substituent effects on the acidities and the KEnol values are discussed.

ACCESSION NUMBER: 2000:426674 CAPLUS  
 DOCUMENT NUMBER: 133:237534  
 TITLE: Acidities and pKEnol values of stable simple enols in the gas phase  
 AUTHOR(S): Mishima, Masaaki; Mustanir; Eventova, Irina; Rappoport, Zvi  
 CORPORATE SOURCE: Institute for Fundamental Research of Organic Chemistry, Kyushu University, Fukuoka, 812-8521, Japan  
 SOURCE: Perkin 2 (2000), (7), 1505-1512  
 CODEN: PRKTFQ; ISSN: 1470-1820  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 111189-84-5  
 RL: PRP (Properties)  
 (acidities and pKEnol values of stable simple enols in gas phase)  
 RN 111189-84-5 CAPLUS  
 CN Silane, [bis(2,4,6-trimethylphenyl)acetyl]trimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



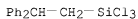
I

AB The preparation of aryl substituted alkylsilanes, I ( $m, p, q = 0, 1; n, y = 0-2$ ;  $X1, X2, X3, X4, X5$  = same or different H, F, Cl;  $R = C1-12$  alkyl group; provided that if  $n = 0, m = 0$  and if  $n = 1, 2$ , at least two of  $X1, X2, X3, X4, X5$  represent chloro or fluoro group), by the reaction of substituted benzenes with aryl substituted alkylsilanes in the presence of Lewis acid catalysts such as aluminum chloride is described. Thus, aluminum chloride catalyzed alkylation of 1,4-dichlorobenzene with (dichloromethyl)methyldichlorosilane gave 47% [bis(2,5-dichlorophenyl)methyl]methyldichlorosilane.

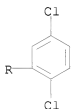
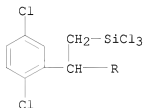
ACCESSION NUMBER: 2000:96028 CAPLUS  
DOCUMENT NUMBER: 132:122758  
TITLE: Aryl substituted alkylsilanes and a preparation method thereof  
INVENTOR(S): Jung, Il Nam; Yoo, Bok Ryul; Han, Joon Soo; Cho, Yeon Seok  
PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----

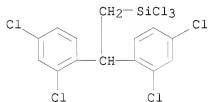
US 6022987 A 20000208 US 1997-997583 19971223  
 PRIORITY APPLN. INFO.: KR 1996-77559 A 19961230  
 OTHER SOURCE(S): CASREACT 132:122758; MARPAT 132:122758  
 IT 18419-82-4P 256343-30-3P 256343-31-4P  
 256343-32-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 18419-82-4 CAPLUS  
 CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 256343-30-3 CAPLUS  
 CN Silane, [2,2-bis(2,5-dichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX NAME)

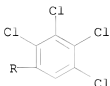
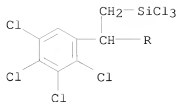


RN 256343-31-4 CAPLUS  
 CN Silane, [2,2-bis(2,4-dichlorophenyl)ethyl]trichloro- (9CI) (CA INDEX NAME)



RN 256343-32-5 CAPLUS  
 CN Silane, [2,2-bis(2,3,4,5-tetrachlorophenyl)ethyl]trichloro- (9CI) (CA INDEX NAME)





REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB Stable carbocations were prepared at room temperature with benzene as solvent and

tetrakis(pentafluorophenyl)borate (TPFPB) as anion by the addition of solvated triethylsilylium TPFPB or of tributylgermylium TPFPB to 1,1-diphenylethane. These carbocations are stabilized by  $\sigma$  conjugation with nonadjacent Group 14 atoms and resp. constitute stable saturated  $\beta$ -silyl and  $\beta$ -germyl carbocations. NMR parameters, including the 29Si chemical shift, the 13C chemical shifts of the cationic, aryl, and methylene carbons, and the 1-bond 13C-1H coupling constant of the methylene group adjacent to the group 14 element, define the distribution of pos. charge between C and (through  $\sigma$  conjugation) Si or Ge. The extent of hyperconjugation is estimated quant. by comparison with models. The NMR parameters indicate that the cations are open rather than bridged.

ACCESSION NUMBER: 1999:197532 CAPLUS  
DOCUMENT NUMBER: 130:338181  
TITLE:  $\beta$ -Silyl and  $\beta$ -Germyl Carbocations Stable at Room Temperature  
AUTHOR(S): Lambert, Joseph B.; Zhao, Yan; Wu, Hongwei  
CORPORATE SOURCE: Department of Chemistry, Northwestern University, Evanston, IL, 60208-3113, USA  
SOURCE: Journal of Organic Chemistry (1999), 64(8), 2729-2736  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 181220-01-9P, 1,1-Diphenyl-2-(triethylsilyl)ethane  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 181220-01-9 CAPLUS  
CN Silane, (2,2-diphenylethyl)triethyl- (9CI) (CA INDEX NAME)

Et<sub>3</sub>Si-CH<sub>2</sub>-CHPh<sub>2</sub>

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB Hydroboration of aliphatic vinyl silanes with the highly electrophilic bis(pentafluorophenyl)borane, HB(C6F5)2, gives predominantly the thermodynamically favored regioisomer with boron and silicon on the same carbon. Thus, hydroboration of Me3Si(CH2)nCH:CH2 (n = 0, 1, 4) with HB(C6F5)2 in C6D6 gave 94:6 ratio of Me3Si(CH2)nCH2CH2B(C6F5)2 and Me3SiCH(B(C6F5)2)(CH2)nCH3. Thermodyn. product mixts. are obtained because equilibration of isomers through boryl migration is facile in the products of hydroboration with HB(C6F5)2. The 1,1-substituted isomers are the most stable by virtue of a ground state  $\beta$ -silicon effect involving hyperconjugation between the Me3Si group and the electrophilic borane center. More complex thermal rearrangements are observed when aromatic vinyl silanes are hydroborated with HB(C6F5)2. Expts. using 13C-labeled and para-substituted substrates provide mechanistic information on these rearrangements which appear to be driven by the formation of compds. which can engage in the ground state  $\beta$ -silicon interaction. The mechanistic proposals given are supported by computational results performed at the AM1 level.

ACCESSION NUMBER: 1998:801735 CAPLUS

DOCUMENT NUMBER: 130:139386

TITLE: Hydroboration of vinyl silanes with bis(pentafluorophenyl)borane: ground state  $\beta$ -silicon effects

AUTHOR(S): Parks, Daniel J.; Piers, Warren E.  
CORPORATE SOURCE: Department of Chemistry, University of Calgary, Calgary, AB, T2N 1N4, Can.

SOURCE: Tetrahedron (1998), 54(51), 15469-15488  
CODEN: TETRA; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

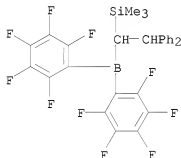
OTHER SOURCE(S): CASREACT 130:139386

IT 220082-38-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and attempted thermal rearrangement of)

RN 220082-38-2 CAPLUS

CN Borane, [2,2-diphenyl-1-(trimethylsilyl)ethyl]bis(pentafluorophenyl)-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB Hydrosilylation of Ph2C:CH2 with SiCl3 leads in high yields to Ph2CHCH2SiCl3 which was investigated spectroscopically as well as by x-ray structure determination The compound crystallizes monoclinically in the acentric space group Cc (a 1002.4, b 1573.8, c 979.7 pm,  $\beta$  106.27°, Z

4). The bonding parameters show no special features. By fluorination with ZnF<sub>2</sub> in Et<sub>2</sub>O and by reduction with "Red-Al" in toluene, the corresponding SiF<sub>3</sub> and SiH<sub>3</sub> derivs. were resp. prepared

ACCESSION NUMBER: 1997:499876 CAPLUS  
DOCUMENT NUMBER: 127:190784  
TITLE: Syntheses of 2,2-diphenylethyl-substituted silanes.  
Molecular structure of trichloro-(2,2-diphenylethyl)silane  
AUTHOR(S): Dautel, J.; Abele, S.; Schwarz, W.  
CORPORATE SOURCE: Institut Anorganische Chemie, Universitat Stuttgart, Stuttgart, D-70569, Germany  
SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (1997), 52(7), 778-784  
CODEN: ZNBSEN; ISSN: 0932-0776  
PUBLISHER: Verlag der Zeitschrift fuer Naturforschung  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 127:190784  
IT 194288-10-3P 194288-11-4P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 194288-10-3 CAPLUS  
CN Silane, (2,2-diphenylethyl)trifluoro- (9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiF<sub>3</sub>

RN 194288-11-4 CAPLUS  
CN Silane, (2,2-diphenylethyl)- (9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiH<sub>3</sub>

IT 18419-82-4P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation, crystal structure, reduction and fluorination of)  
RN 18419-82-4 CAPLUS  
CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiCl<sub>3</sub>

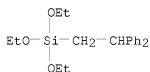
L3 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Preparation is described of an active, selective and stable heterogenized hydrosilylation platinum catalyst. The catalyst is prepared by (1) modification of a silica carrier with a silane compound (RO)3Si(CH<sub>2</sub>)<sub>n</sub>[NH(CH<sub>2</sub>)<sub>m</sub>]<sub>x</sub>NH<sub>2</sub> or its mixture with (OR)3Si(CH<sub>2</sub>)<sub>2</sub>nR<sub>1</sub> (R = Me, Et, n,m = 1-3, x = 0, 1; R<sub>1</sub> = thiol, diphenylphosphine), (2) deposition of Pt complex by immobilizing hexachloroplatinic acid, and (3) coupling with (meth)acrylic acid in presence of R<sub>2</sub>N=C=NR<sub>2</sub> (R<sub>2</sub> = cyclohexyl, isopropyl). The polymer membrane produced by condensation of the surface amino groups with (meth)acrylic acid prevents elution of the Pt complex in the catalytic process. The obtained catalyst show high constant activity for .apprx.300 h in gas-phase hydrosilylation of acetylene with trichlorosilane.

ACCESSION NUMBER: 1996:636936 CAPLUS  
DOCUMENT NUMBER: 125:258084

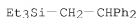
TITLE: Heterogenized platinum catalyst and its preparation method  
 INVENTOR(S): Marciniak, Bogdan; Foltynowicz, Zenon; Lewandowski, Mariusz  
 PATENT ASSIGNEE(S): Uniwersytet Im Adama Mickiewicza, Pol.  
 SOURCE: Pol., 6 pp.  
 CODEN: POXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Polish  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 169330	B1	19960731	PL 1992-295178	19920706

PRIORITY APPLN. INFO.:  
 IT 182414-79-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of heterogenized hydrosilylation platinum catalyst)  
 RN 182414-79-5 CAPLUS  
 CN Silane, (2,2-diphenylethyl)triethoxy- (9CI) (CA INDEX NAME)



L3 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Diphenyl[(triethylsilyl)methyl]methylm tetraakis(pentafluorophenyl)borate, a  $\beta$ -silyl-stabilized carbocation ( $\text{Et}_3\text{SiCH}_2\text{CPh}_2^+$ ), was prepared in aromatic solvents by the addition of triethylsilylium tetraakis(pentafluorophenyl)borate to 1,1-diphenylethene. The  $^{13}\text{C}$  resonance position of the phenyl-substituted C occurs at  $\delta$  225.4 and indicates that the predominance of pos. charge resides on C. The single peak in the  $^{29}\text{Si}$  spectrum at  $\delta$  46.2 is consistent with some pos. charge on Si through hyperconjugation. The NMR spectra are in agreement with an open structure rather than a three-membered ring with bridging Si.  
 ACCESSION NUMBER: 1996:486171 CAPLUS  
 DOCUMENT NUMBER: 125:221940  
 TITLE: A Stable  $\beta$ -Silyl Carbocation  
 AUTHOR(S): Lambert, Joseph B.; Zhao, Yan  
 CORPORATE SOURCE: Department of Chemistry, Northwestern University, Evanston, IL, 60208, USA  
 SOURCE: Journal of the American Chemical Society (1996), 118(33), 7867-7868  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 181220-01-9P, (2,2-Diphenylethyl)triethylsilane  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (formation by trapping  $\beta$ -silyl carbocation with silane)  
 RN 181220-01-9 CAPLUS  
 CN Silane, (2,2-diphenylethyl)triethyl- (9CI) (CA INDEX NAME)



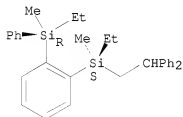
L3 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB Meso- and racemic-1,2-diethyl-1,2-dimethyldiphenyldisilane (2a) and (2b) were synthesized resp. by hydrogenation of meso- and racemic-1,2-diethynyl-1,2-dimethyldiphenyldisilane in the presence of a  $\text{IrCl}(\text{CO})(\text{PPh}_3)_2$  catalyst. Irradiation of 2a with a low-pressure Hg lamp in the presence of isobutene in hexane proceeded with high diastereospecificity to give (R,S)- and (S,R)-2-(isobutylethylmethylsilyl)-1-(ethylmethylphenylsilyl)benzene in 77% yield. Similar irradiation of 2b with isobutene produced (R,R)- and (S,S)-isomer. The photolysis of 2a and 2b in the presence of 1,1-diphenylethylene also proceeded diastereospecifically to give the resp. adducts. With 2,3-dimethylbutadiene, 2a and 2b produced the corresponding adducts, whose spectrometric anal. showed two diastereomers. Results on theor. studies which were carried out using  $\text{PhSiH}_2\text{SiH}_3$  as a model also are reported. The crystal and mol. structures of racemic-1,2-diethynyl-1,2-dimethyldiphenyldisilane and o-(ethylmethylphenylsilyl)(ethylmethyl(2,2-diphenylethyl)silyl)benzene were determined by x-ray crystallog.

ACCESSION NUMBER: 1996:394105 CAPLUS  
DOCUMENT NUMBER: 125:114750  
TITLE: Silicon-Carbon Unsaturated Compounds. 57. Photolysis of meso- and racemic-1,2-Diethyl-1,2-dimethyldiphenyldisilane, Direct Evidence for a Concerted 1,3-Silyl Shift to ortho-Carbon in the Phenyl Ring  
AUTHOR(S): Ohshita, Joji; Niwa, Hiroyuki; Ishikawa, Mitsuo; Yamabe, Tokio; Yoshii, Takao; Nakamura, Kouichi  
CORPORATE SOURCE: Faculty of Engineering, Hiroshima University, Higashi-Hiroshima, 724, Japan  
SOURCE: Journal of the American Chemical Society (1996), 118(29), 6853-6859  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

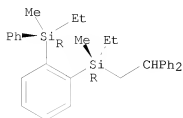
IT 179233-69-3P  
RL: SPN (Synthetic preparation); PREP (Preparation) (racemic)  
RN 179233-69-3 CAPLUS  
CN Silane, (2,2-diphenylethyl)ethyl[2-(ethylmethylphenylsilyl)phenyl]methyl-, (R\*,S\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



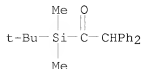
IT 179233-71-7P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (racemic; preparation and crystal structure of)  
RN 179233-71-7 CAPLUS  
CN Silane, (2,2-diphenylethyl)ethyl[2-(ethylmethylphenylsilyl)phenyl]methyl-, (R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Tellurol esters having an anion stabilizing group at the position  $\alpha$  to the carbonyl, such as aryl-, (phenylthio)-, and (benzyloxy)ethanetelluroates, gave enol silyl ethers of the corresponding acylsilanes in good to excellent yields upon treatment with 2 equiv BuLi in the presence of chlorosilanes. This reaction was stereoselective, and Z-isomers were obtained as sole or major products from a variety of chlorosilanes, such as trimethyl-, triethyl-, dimethylphenyl-, and tert-butyldimethylsilyl chlorides. Control expts. revealed that the reaction comprises the following consecutive processes: (i)  $\alpha$ -proton abstraction, (ii) chlorosilane-trapping, (iii) Li-Te exchange, (i.v.) 1,2-silyl migration, and (v) chlorosilane-trapping. Intramol. rearrangement of ( $\alpha$ -siloxyvinyl)lithiums to Li enolates (step i.v.) was very fast even at  $-105^\circ$ , and the former could not be trapped intermolecularly with either HOAc or with coexisting trimethylsilyl chloride.

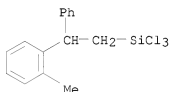
ACCESSION NUMBER: 1995:229646 CAPLUS  
 DOCUMENT NUMBER: 122:81481  
 ORIGINAL REFERENCE NO.: 122:15487a,15490a  
 TITLE: Conversion of Tellurol Esters to Enol Silyl Ethers of Acylsilanes  
 AUTHOR(S): Inoue, Toru; Kambe, Nobuaki; Ryu, Ilhyong; Sonoda, Noboru  
 CORPORATE SOURCE: Faculty of Engineering, Osaka University, Suita, SUIITA, Japan  
 SOURCE: Journal of Organic Chemistry (1994), 59(26), 8209-14  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 122:81481  
 IT 160463-58-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (conversion of tellurol esters to silyl enol ethers of acylsilanes)  
 RN 160463-58-1 CAPLUS  
 CN Silane, (1,1-dimethylethyl)(diphenylacetyl)dimethyl- (9CI) (CA INDEX NAME)



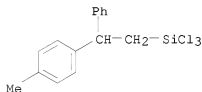
L3 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB The replacement of the usual electron donating alkyl groups on silicon,

with electroneg. chloride ligands, changes the mechanism and outcome of the reaction of (E)- $\beta$ -(dichlorobenzylsilyl)styrene with proton and carbon electrophiles. Electrophilic addition rather than the usual substitution occurs, so that the silicon remains intact to mediate further chemical reactions. The exptl. results show that Friedel-Crafts reactions of the silylated alkene are subject to the same limitations observed for non-silylated alkenes; the extent of polymerization increases as the stability of the carbenium ion decreases.

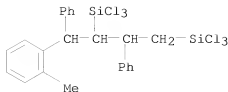
ACCESSION NUMBER: 1994:509734 CAPLUS  
DOCUMENT NUMBER: 121:109734  
ORIGINAL REFERENCE NO.: 121:19853a,19856a  
TITLE: Electrophilic addition to styrylsilanes: sequential carbon-carbon bond forming reactions  
AUTHOR(S): Henry, Courtney; Jueschke, Ralf; Brook, Michael A.  
CORPORATE SOURCE: Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.  
SOURCE: Inorganica Chimica Acta (1994), 220(1-2), 145-54  
CODEN: ICHAA3; ISSN: 0020-1693  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 156970-66-0P 156970-67-1P 156970-68-2P  
156970-69-3P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and NMR spectra of)  
RN 156970-66-0 CAPLUS  
CN Silane, trichloro[2-(2-methylphenyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)



RN 156970-67-1 CAPLUS  
CN Silane, trichloro[2-(4-methylphenyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

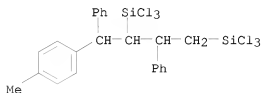


RN 156970-68-2 CAPLUS  
CN Silane, [1-[(2-methylphenyl)phenylmethyl]-2-phenyl-1,3-propanediyl]bis[trichloro- (9CI) (CA INDEX NAME)]



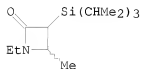
RN 156970-69-3 CAPLUS

CN Silane, [1-[(4-methylphenyl)phenylmethyl]-2-phenyl-1,3-propanediyl]bis[trichloro- (9CI) (CA INDEX NAME)

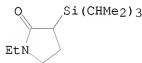


L3 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

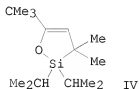
GI



II



III



IV

AB Photochem. decomposition of (1-diazo-2-oxoalkyl)silanes  $R_1COCN_2SiR_3$  [I:  $SiR_3 = SiEt_3, Si(CHMe_2)_3, Me_3CSiMe_2, Ph_2SiCMe_3, (Me_3C)_2SiMe$ ;  $R_1 = Me, CMe_3, CHPh_2, 1\text{-adamantyl}, Ph$ ] results in Wolff rearrangement yielding silyl ketenes  $R_3SiCR_1C:O$ . From I [ $SiR_3 = Me_2SiCMe_3, MeSi(CMe_3)_2, Ph_2SiCMe_3, Si(CHMe_2)_3, R_1 = CMe_3$ ], 2-silyl-cyclobutanones are formed as byproducts, arising from intramol. C/H insertion of the acyl carbene intermediate. Irradiation of diazotriisopropylsilylacetamide yields only  $\beta$ -lactam II and  $\gamma$ -lactam III. Wolff rearrangement also takes place on copper triflate catalyzed decomposition of I whereas the 1-oxa-2-sila-4-cyclopentene IV is obtained from I [ $R_3Si = (Me_2CH)_3Si, R_1 = CMe_3$ ], probably as the result of SiC/H insertion of a copper carbene intermediate.

ACCESSION NUMBER: 1990:217024 CAPLUS

DOCUMENT NUMBER: 112:217024

ORIGINAL REFERENCE NO.: 112:36649a, 36652a

TITLE: Wolff rearrangement of (1-diazo-2-oxoalkyl)silanes

AUTHOR(S): Brueckmann, Ralf; Schneider, Klaus; Maas, Gerhard

CORPORATE SOURCE: Fachbereich Chem., Univ. Kaiserslautern,

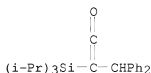
Kaiserslautern, D-6750, Fed. Rep. Ger.

SOURCE: Tetrahedron (1989), 45(17), 5517-30

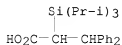
CODEN: TETRAB; ISSN: 0040-4020



DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 112:217024  
 IT 126364-86-1P 126364-87-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 126364-86-1 CAPLUS  
 CN 1-Propen-1-one, 3,3-diphenyl-2-[tris(1-methylethyl)silyl]- (CA INDEX NAME)

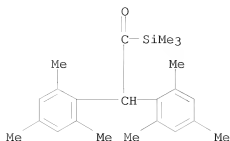


RN 126364-87-2 CAPLUS  
 CN Benzenepropanoic acid,  $\beta$ -phenyl- $\alpha$ -[tris(1-methylethyl)silyl]- (CA INDEX NAME)

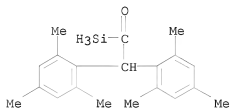


L3 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB MO calcns. suggest that replacement of an  $\alpha$ -Me by an  $\alpha$ -silyl substituent will increase the stability of the enols  $\text{H}_2\text{C}:\text{C}(\text{OH})\text{R}$  compared with their keto isomers  $\text{H}_3\text{CCOR}$ . This is corroborated by the synthesis of the stable enol  $(\text{Mes})_2\text{C}:\text{C}(\text{OH})\text{R}$  (Mes = mesityl, R = SiMe<sub>3</sub>) which does not ketonize in hexane/CF<sub>3</sub>CO<sub>2</sub>H although the analog with R = CMe<sub>3</sub> is converted almost completely to the ketone under the same conditions.

ACCESSION NUMBER: 1988:94631 CAPLUS  
 DOCUMENT NUMBER: 108:94631  
 ORIGINAL REFERENCE NO.: 108:15575a,15578a  
 TITLE: The first  $\alpha$ -silicon-substituted simple enol.  
 The stabilizing effect of the silyl substituent  
 AUTHOR(S): Nadler, Ella B.; Rappoport, Zvi; Arad, Dorit; Apeloig, Yitzhak  
 CORPORATE SOURCE: Dep. Org. Chem., Hebrew Univ., Jerusalem, 91904, Israel  
 SOURCE: Journal of the American Chemical Society (1987), 109(25), 7873-5  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 108:94631  
 IT 111189-84-5 111189-85-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (keto-enol equilibrium consts. for)  
 RN 111189-84-5 CAPLUS  
 CN Silane, [bis(2,4,6-trimethylphenyl)acetyl]trimethyl- (9CI) (CA INDEX NAME)



RN 111189-85-6 CAPLUS  
CN Silane, [bis(2,4,6-trimethylphenyl)acetyl]- (9CI) (CA INDEX NAME)



L3 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
AB The reaction of Cl3SiCH:CHCl, Me2SiClCH:CHCl, Me3SiCH:CHCl and Cl3SiC.tplbond.CH with protonating compds., Mg, hydrosilanes, C6H6 and adamantane was studied. Thus, heating Cl3SiCH:CHCl with adamantane in the presence of AlCl3 gave 26% Cl3SiCH2CH2R (R = 1-admantyl).

ACCESSION NUMBER: 1984:491036 CAPLUS  
DOCUMENT NUMBER: 101:91036  
ORIGINAL REFERENCE NO.: 101:13963a,13966a  
TITLE: Some chemical properties of chlorovinyl- and ethynylsilanes  
AUTHOR(S): Sheludyakov, V. D.; Zhun, V. I.; Lakhtin, V. G.; Bochkarev, V. N.; Slyusarenko, T. F.; Nosova, V. N.; Kisin, A. V.  
CORPORATE SOURCE: USSR  
SOURCE: Zhurnal Obshchei Khimii (1984), 54(3), 640-6  
CODEN: ZOKHA4; ISSN: 0044-460X  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 101:91036  
IT 18419-82-4P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 18419-82-4 CAPLUS  
CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



L3 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Under the agency of the potent lithiating agent, BuLi in Me2N(CH2)2NMMe2, an array of organosilanes was found to undergo 1,n-silyl rearrangements via carbanionic intermediates. Unambiguous 1,2-, 1,3- and 1,4-silyl

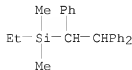
shifts were uncovered in 1-trimethylsilyl-1,1,2-triphenylethane, 1,1-bis(trimethylsilyl)-1-phenylalkanes and 1,2-bis(trimethylsilyl)-1,2-diphenylethane, resp. Cross-over and competition expts. established that these rearrangements generally are intramol. and occur with decreasing ease in the order,  $1,2 > 1,3 > 1,4$ . In other compds., such as 1,1-bis(trimethylsilyl)-1,2-diphenylethane, 1,n-bis(trimethylsilyl)benzenes and triphenyl(trimethylsilyl)methane, competing 1,n-silyl shifts occurred. Attack of the organolithium intermediates on solvent and Si-Li exchange were significant side reactions in some instances. 1-Trimethylgermyl-1,1,2-triphenylgermane underwent no discernible rearrangement but rather gave the product expected from Ge-Li exchange. By conducting time and competition studies, it was shown that lithiation is the product-determining step in these rearrangements and that dual pathways, namely 1,3- vs. consecutive 1,2- and 1,4-pathways, are operative in certain rearrangements.

ACCESSION NUMBER: 1982:142942 CAPLUS  
DOCUMENT NUMBER: 96:142942  
ORIGINAL REFERENCE NO.: 96:23517a,23520a  
TITLE: Organosilicon compounds with functional groups proximate to silicon. Part 15. 1,n-Triorganosilyl migrations in the rearrangements of silyl-substituted organolithium compounds  
AUTHOR(S): Eisch, John J.; Tsai, Miin Rong  
CORPORATE SOURCE: Dep. Chem., State Univ. New York, Binghamton, NY, 13901, USA  
SOURCE: Journal of Organometallic Chemistry (1982), 225(1), 5-23  
CODEN: JORCAI; ISSN: 0022-328X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 96:142942  
IT 81290-08-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(attempted rearrangement of, in presence of butyllithium)  
RN 81290-08-6 CAPLUS  
CN Silane, trimethyl(1,2,2-triphenylethyl)- (9CI) (CA INDEX NAME)

Ph

Me<sub>3</sub>Si-CH-CHPh<sub>2</sub>

IT 81290-12-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 81290-12-2 CAPLUS  
CN Silane, ethyldimethyl(1,2,2-triphenylethyl)- (9CI) (CA INDEX NAME)



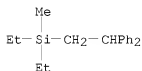
L3 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Ten acyclic, cyclic and aralkylated silanes were treated with Ph<sub>3</sub>C<sup>+</sup> BF<sub>4</sub><sup>-</sup> in CH<sub>2</sub>Cl<sub>2</sub> to measure rates of oxidative desilylation: RCH<sub>2</sub>CH<sub>2</sub>SiR<sub>3</sub> + Ph<sub>3</sub>C<sup>+</sup> BF<sub>4</sub><sup>-</sup> → Ph<sub>3</sub>CH + RCH:CH<sub>2</sub> + R<sub>3</sub>SiF + BF<sub>3</sub>. The divergence of rates,

from Ph<sub>2</sub>CHCH<sub>2</sub>SiMe<sub>3</sub> (which was inert) through dimethylsilacyclopentane (k<sub>2</sub> = 4 + 10<sup>-6</sup>) to dimethylsilacyclohexane (k<sub>2</sub> = 2.2 + 10<sup>-3</sup>), can not be rationalized on purely electronic grounds. A transition state requiring anticoplanar arrangement of the Si moiety and β-H to be extruded is proposed. Dimethylsilacyclobutane, which reacts extremely rapidly (k<sub>2</sub> ≈ 2 + 10<sup>-2</sup>), suffers allylic cleavage of the initially formed CH<sub>2</sub>:CHCH<sub>2</sub>SiMe<sub>2</sub>F. As the olefin products suffer decomposition or polymerization under the reaction conditions, this desilylation is of minimal

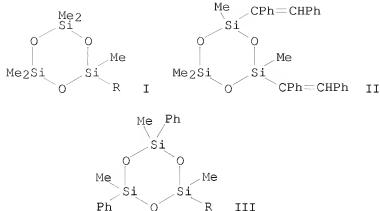
preparative value.  
 ACCESSION NUMBER: 1981:83236 CAPLUS  
 DOCUMENT NUMBER: 94:83236  
 ORIGINAL REFERENCE NO.: 94:13561a,13564a  
 TITLE: Oxidative desilylation of alkylsilanes with triphenylcarbenium ion. Control by transition-state geometry  
 AUTHOR(S): Washburne, Stephen S.; Szendroi, Robert  
 CORPORATE SOURCE: Dep. Chem., Temple Univ., Philadelphia, PA, 19122, USA  
 SOURCE: Journal of Organic Chemistry (1981), 46(4), 691-3  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 75961-63-6 75961-64-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with triphenylcarbenium tetrafluoroborate, kinetics of)  
 RN 75961-63-6 CAPLUS  
 CN Silane, (2,2-diphenylethyl)trimethyl- (9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiMe<sub>3</sub>

RN 75961-64-7 CAPLUS  
 CN Silane, (2,2-diphenylethyl)diethylmethyl- (9CI) (CA INDEX NAME)



L3 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 GI



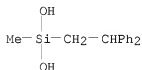
AB Cyclosiloxanes I (R = PhCH<sub>2</sub>CH<sub>2</sub>, Ph<sub>2</sub>CHCH<sub>2</sub>, CHPhCH<sub>2</sub>Ph, CPh:CHPh) were prepared in 41.2-71% yields by condensation of RSiCl<sub>2</sub>Me with (HOSiMe<sub>2</sub>)<sub>2</sub>O. Similarly obtained was 66.3% II. Condensation of RSi(OH)Me<sub>2</sub> with (ClPhMeSi)<sub>2</sub>O gave 55.9-72.9% III.

ACCESSION NUMBER: 1978:509707 CAPLUS  
 DOCUMENT NUMBER: 89:109707  
 ORIGINAL REFERENCE NO.: 89:16921a,16924a  
 TITLE: Synthesis of organosiloxanes with aliphatic-aromatic radicals at the silicon atom  
 AUTHOR(S): Nogaideli, A. I.; Nakaidze, L. I.; Tskhovrebashvili, V. S.  
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tiflis, USSR  
 SOURCE: Zhurnal Obshchei Khimii (1978), 48(6), 1344-7  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 89:109707  
 IT 57522-91-5

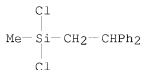
RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with dichlorodiphenyldimethyldisiloxane)

RN 57522-91-5 CAPLUS

CN Silanediol, (2,2-diphenylethyl)methyl- (9CI) (CA INDEX NAME)



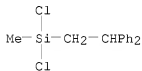
IT 53888-97-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with dihydroxytetramethyldisiloxane)  
 RN 53888-97-4 CAPLUS  
 CN Silane, dichloro(2,2-diphenylethyl)methyl- (9CI) (CA INDEX NAME)



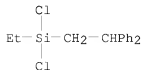
L3 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 GI For diagram(s), see printed CA Issue.  
 AB Alkaline hydrolysis of  $\text{RR}_1\text{SiCl}_2$  gave  $\text{RR}_1\text{Si}(\text{OH})_2$  ( $\text{R} = \text{PhCH}_2\text{CHPh}$ ,  $\text{PhCH}_2\text{CHCH}_2$ ;  $\text{R}_1 = \text{Me}$ ,  $\text{Et}$ ) in 68.7-81-6% yields. Hydrolytic polycondensation of  $\text{RSiCl}_3$  in  $\text{H}_2\text{O}-\text{Me}_2\text{CO}$  at  $-5^\circ$  gave  $\text{I}$  ( $\text{R} = \text{PhCH}_2\text{CHCH}_2$ ,  $\text{PhCH}_2\text{CHPh}$ ,  $\text{PhCH}:\text{CPh}$ ) whereas in basic ether or  $\text{H}_2\text{O}-\text{ether}-\text{NaOH}$  solns., cyclopolysiloxanes were formed.  
 ACCESSION NUMBER: 1976:31176 CAPLUS  
 DOCUMENT NUMBER: 84:31176  
 ORIGINAL REFERENCE NO.: 84:5109a,5112a  
 TITLE: Hydrolysis of aliphatic-aromatic di- and trichlorosilanes  
 AUTHOR(S): Andrianov, K. A.; Nogaideli, A. I.; Tskhovrebashvili, V. S.; Nakaidze, L. I.; Zhinkin, D. Ya.  
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tiflis, USSR  
 SOURCE: Doklady Akademii Nauk SSSR (1975), 223(3), 603-5 [Chem]  
 CODEN: DANKAS; ISSN: 0002-3264  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 IT 18419-82-4 53888-97-4 53888-98-5  
 RL: RCT (Reactant); RACT (Reactant or reagent) (alkaline hydrolysis of)  
 RN 18419-82-4 CAPLUS  
 CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 53888-97-4 CAPLUS  
 CN Silane, dichloro(2,2-diphenylethyl)methyl- (9CI) (CA INDEX NAME)

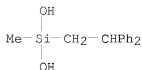


RN 53888-98-5 CAPLUS  
 CN Silane, dichloro(2,2-diphenylethyl)ethyl- (9CI) (CA INDEX NAME)

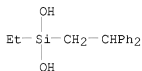


IT 57522-91-5P 57522-92-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)

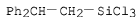
(preparation of)  
 RN 57522-91-5 CAPLUS  
 CN Silanediol, (2,2-diphenylethyl)methyl- (9CI) (CA INDEX NAME)



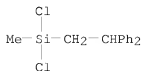
RN 57522-92-6 CAPLUS  
 CN Silanediol, (2,2-diphenylethyl)ethyl- (9CI) (CA INDEX NAME)



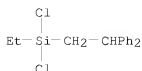
L3 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB The hydrosilylation of  $\text{Ph}_2\text{C}=\text{CH}_2$  and  $\text{PhCH}=\text{CHPh}$  with  $\text{RSiHCl}_2$  gave  
 $\text{Ph}_2\text{CHCH}_2\text{SiRCl}_2$  and  $\text{PhCH}_2\text{CHPhSiRCl}_2$ , resp. (R = Cl, Me, Et, Ph).  
 ACCESSION NUMBER: 1974:569584 CAPLUS  
 DOCUMENT NUMBER: 81:169584  
 ORIGINAL REFERENCE NO.: 81:26243a,26246a  
 TITLE: Hydrosilylation of isomeric diphenylethylenes  
 AUTHOR(S): Nogaideli, A. I.; Nakaidze, L. I.; Tskhovrebashvili,  
 V. S.  
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR  
 SOURCE: Zhurnal Obshchei Khimii (1974), 44(8), 1763-6  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 IT 18419-82-4P 53888-97-4P 53888-98-5P  
 53888-99-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 18419-82-4 CAPLUS  
 CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



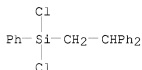
RN 53888-97-4 CAPLUS  
 CN Silane, dichloro(2,2-diphenylethyl)methyl- (9CI) (CA INDEX NAME)



RN 53888-98-5 CAPLUS  
 CN Silane, dichloro(2,2-diphenylethyl)ethyl- (9CI) (CA INDEX NAME)

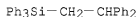


RN 53888-99-6 CAPLUS  
CN Silane, dichloro(2,2-diphenylethyl)phenyl- (9CI) (CA INDEX NAME)



L3 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Triarylsilylmethyl-metallic reagents were prepared by several routes: metalation; addition of PhLi to vinyltriphenylsilane; direct synthesis; and by halogen-metal exchange. The latter method is highly superior as regards both generality of application and yields. Dibromo-methylsilanes undergo halogen-metal exchange at -78°, and reaction of the product with HBr serves as a valuable way of converting geminal dibromides to monobromides. The organometallic reagents were characterized in several ways, especially by carbonation to give the related carboxylic acid.

ACCESSION NUMBER: 1970:100816 CAPLUS  
DOCUMENT NUMBER: 72:100816  
ORIGINAL REFERENCE NO.: 72:18304h,18305a  
TITLE: Preparation and reactions of triarylsilylmethylmetallic reagents  
AUTHOR(S): Brook, Adrian G.; Duff, J. M.; Anderson, David Gordon  
CORPORATE SOURCE: Dep. Chem., Univ. Toronto, Toronto, ON, Can.  
SOURCE: Canadian Journal of Chemistry (1970), 48(4), 561-9  
CODEN: CJCHAG; ISSN: 0008-4042  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 18834-21-4P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 18834-21-4 CAPLUS  
CN Silane, (2,2-diphenylethyl)triphenyl- (6CI, 8CI) (CA INDEX NAME)



L3 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Ph3SiK (I) and Ph3SiLi (II) added to the olefinic linkage of 1,1-diphenylethylene (III) and of triphenylethylene (IV). No addition occurred, under corresponding conditions, to tetraphenylethylene (V) and to a variety of aliphatic and alicyclic olefins. For comparison purposes, triphenyl(1,1-diphenylethyl)silane (VI) and triphenyl(1,1,2-triphenylethyl)silane (VII) were synthesized by metalation of triphenyl(diphenylmethyl)silane (VIII) with BuLi and subsequent treatment with Me2SO4 and PhCH2Cl (IX), resp. I suspension (from cleavage of 0.01 mole hexaphenyldisilane) left 2 hrs. with 3.6 g. III in 20 ml. Et2O, the



mixture hydrolyzed, the solution dried, and Et<sub>2</sub>O evaporated gave 3.5 g. triphenyl[2,2-diphenylethyl]silane (X), lustrous plates, m. 106-8° (alc.). II (0.0122 mole) in tetrahydrofuran (THF) added to 2.2 g. III, the mixture stirred 0.5 hr. at room temperature, then hydrolyzed, the organic layer evaporated, and the residue recrystd. gave 80% X. Ph<sub>2</sub>CHCH<sub>2</sub>Cl (4.3 g.) in 20 ml. Et<sub>2</sub>O added during 2 min. to an amalgamated suspension of 0.02 mole I, the mixture left 2 hrs., hydrolyzed, and the product isolated gave 1.1 g. hexaphenyldisilane. The Et<sub>2</sub>O solution on evaporation gave 4.1 g. X. PhLi (0.002 mole) in THF added to 0.5 g. triphenyl-β-styrylsilane, stirred 2 hrs. at room temperature, the mixture hydrolyzed, Et<sub>2</sub>O added, the solvent removed, and the residue chromatographed on Al<sub>2</sub>O<sub>3</sub> gave 0.18 g. Ph<sub>4</sub>Si. No other product was isolated from the mother liquor. BuLi (0.015 mole) added at once to 5 g. VIII in 25 ml. THF, the solution stirred 40 min. at room temperature, excess Me<sub>2</sub>SO<sub>4</sub> added, then hydrolyzed, and the product separated gave 58% VI, m. 193-5° (C<sub>6</sub>H<sub>6</sub>-alc.). II (0.020 mole) in THF added to 5.12 g. IV, the mixture stirred 1 hr. at room temperature, hydrolyzed, and the organic layer worked up as usual gave 6.4 g. 1,2,2-isomer of VII, m. 171-2° (C<sub>6</sub>H<sub>6</sub>-alc.). BuLi (0.015 mole) added to 5 g. VIII in 25 ml. THF, stirred 40 min. at room temperature, excess IX added, the mixture hydrolyzed, and worked up gave 1.5 g. VII, m. 198-200° (C<sub>6</sub>H<sub>6</sub>-alc.). II (0.015 mole) in THF stirred 6 hrs. at room temperature with 5 g. V, then 1 hr. at 50°, hydrolyzed with dilute acid, and the organic portion worked up gave 4.2 g. V, m. 222-4°; the filtrate chromatographed gave 2.2 g. Ph<sub>3</sub>SiH, m. 43-5° (MeOH). Attempted reactions of I with other olefins were carried out by mixing a suspension of I with an equimolar amount of the olefinic compound; the mixture stirred a certain time, H<sub>2</sub>O added, the organic layer dried, evaporated, and the residue crystallized gave triphenylsilanol (XI) as chief product. In 2 expts. with 1,2-dimethoxyethane as the solvent, a mixture of V and hexaphenyldisiloxane was also obtained. In the reaction of 9,9'-bifluorene with I in Et<sub>2</sub>O, heat was evolved and the mixture became dark. The workup gave a tarlike material from which little pure product could be isolated. The following results were obtained with I (olefin, reaction time in hrs., % yield of XI, and other products isolated given): 1-octene, 96, 63, -; 1-octene, 48, 25, 24% Ph<sub>4</sub>Si, 22% (R<sub>3</sub>Si)<sub>2</sub>O (XII); 1-dodecene, 72, 78, -; 1-dodecene, 48, 21, 36% R<sub>4</sub>Si, 20% XII; 1-hexadecene, 24, 86, -; 1-octadecene, 24, 89, -; cyclohexene, 48, 87, -; cyclohexene, 48, 66, -; 1-methylcyclopentene, 48, 72, -; 1,1-diphenylethylene, 2, -, 42% adduct; V, 48, 74, 70% R<sub>2</sub>C:CR<sub>2</sub>; V, 3, 52, 74% R<sub>2</sub>C:CR<sub>2</sub>; 1,4-diphenyl-1,3-butadiene, 5, 42, 12% (R<sub>3</sub>Si)<sub>2</sub>; 9,9'-bifluorene, 3, -, tar.

ACCESSION NUMBER: 1960:97334 CAPLUS  
DOCUMENT NUMBER: 54:97334  
ORIGINAL REFERENCE NO.: 54:18403e-i,18404a-c  
TITLE: Addition of silylmetallic compounds to olefins  
AUTHOR(S): Wu, T. C.; Wittenberg, Dietmar; Gilman, Henry  
CORPORATE SOURCE: Iowa State Univ., Ames  
SOURCE: Journal of Organic Chemistry (1960), 25, 596-8  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

IT 18821-97-1P, Silane, triphenyl[1,2,2-triphenylethyl]-  
18834-21-4P, Silane, [2,2-diphenylethyl]triphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 18821-97-1 CAPLUS  
CN Silane, triphenyl[1,2,2-triphenylethyl]- (6CI, 8CI) (CA INDEX NAME)

Ph

Ph<sub>3</sub>Si-CH-CHPh<sub>2</sub>

RN 18834-21-4 CAPLUS

CN Silane, (2,2-diphenylethyl)triphenyl- (6CI, 8CI) (CA INDEX NAME)

Ph<sub>3</sub>Si-CH<sub>2</sub>-CHPh<sub>2</sub>

L3 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB A series of catalytic reactions of various chlorosilanes with benzene, chlorobenzene, toluene, styrene and allylbenzene was carried out to investigate the synthesis of organosilicon compds. containing an aromatic ring. Raney Ni, AlCl<sub>3</sub>, metallic Al, H<sub>3</sub>BO<sub>3</sub>, and H<sub>2</sub>PtCl<sub>6</sub> were tested as the catalysts. Details of expts. and yields obtained were presented in 7 tables.

ACCESSION NUMBER: 1959:94561 CAPLUS

DOCUMENT NUMBER: 53:94561

ORIGINAL REFERENCE NO.: 53:17028a-b

TITLE: Synthesis of organosilicon monomers containing an aromatic ring

AUTHOR(S): Dolgaya, M. E.; Chernyshev, E. A.; Li, Guan-Lian

CORPORATE SOURCE: Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow

SOURCE: Khim. i Prakt. Primenenie Kremneorg. Soedinenii, Trudy Konf., Leningrad (1958), (No. 1), 99-106

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

IT 18419-82-4P, Silane, trichloro[2,2-diphenylethyl]-

RL: PREP (Preparation)

(preparation of)

RN 18419-82-4 CAPLUS

CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiCl<sub>3</sub>

L3 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

AB cf. C.A. 52, 162611. Representative members of all possible types of alkyl and aryl α-silylcarbinols were treated with Na-K alloy in ether at room temperature. It was found that all these compds., with the exception of Ph<sub>3</sub>SiCH<sub>2</sub>OH (I), were readily rearranged to the isomeric silyl ether in good yield. A number of new compds. are reported. Ph<sub>3</sub>SiBz (II) with 1 equivalent MeMgI gave 85% Ph<sub>3</sub>SiCMePhOH (III), m. 120-2° (ligroine, b. 90-100°). II with excess LiAlH<sub>4</sub> in Et<sub>2</sub>O gave 81% Ph<sub>3</sub>SiCHPhOH, m. 116-17° (ligroine). Ph<sub>3</sub>SiLi (IV) (0.0193 mole) in 50 cc. tetrahydrofuran [from 5.0 g. (Ph<sub>3</sub>Si)<sub>2</sub> (V)] treated with 2 cc. AcH in 50 cc. tetrahydrofuran, the mixture worked up in the usual manner, and the crude product recrystd. from ligroine (b. 60-70°) and then EtOH gave 3.14 g. I, m. 101-1.5°. Ph<sub>2</sub>CH<sub>2</sub> (42 cc.) in 150 cc. Et<sub>2</sub>O added to 172 cc. 1.45N BuLi in Et<sub>2</sub>O, refluxed 24 hrs., treated with 30.7 cc. Me<sub>3</sub>SiCl, stirred 16 hrs., poured into dilute acid, extracted with Et<sub>2</sub>O, the extract dried and evaporated, and the residue distilled gave 29.1 g. Ph<sub>2</sub>CHSiMe<sub>3</sub> (VI), m.

73-5° (EtOH). VI (14.88 g.) in 150 cc. CCl<sub>4</sub> treated with 11.0 g. N-bromosuccinimide and a trace of Bz<sub>2</sub>O<sub>2</sub>, refluxed 16 hrs., cooled, filtered, the filtrate evaporated and distilled, the resulting crude Ph<sub>2</sub>CBrSiMe<sub>3</sub>, bl.2 148-50°, dissolved in 150 cc. Me<sub>2</sub>CO and 25 cc. H<sub>2</sub>O, the solution treated with 10.4 g. AgOAc, the mixture stirred about 14 hrs. in the dark and filtered, the filtrate poured into 1 l. H<sub>2</sub>O and extracted with CHCl<sub>3</sub>, the extract dried and evaporated, and the residue recrystd. from ligroine gave 10.24 g. Me<sub>3</sub>SiCPh<sub>2</sub>OH, m. 57.7-9.2° (ligroine). IV (from 5.0 g. V) in 50 cc. tetrahydrofuran added dropwise with stirring at -70° to 3.06 g. Ac<sub>2</sub>O in 50 cc. tetrahydrofuran, poured into dilute HCl, extracted with Et<sub>2</sub>O, and the residue from the extract recrystd. from CHCl<sub>3</sub> and CHCl<sub>3</sub>-EtOH yielded 1.75 g. MeC(OH)(SiPh<sub>3</sub>)<sub>2</sub> (VII), m. 212-14°, and 0.5 g. Ph<sub>3</sub>SiO(Ph<sub>3</sub>Si)CHMe (VIII), m. 156-7°. PhMeCHOH (40 cc.) treated with 2.3 g. Na and 200 cc. dry C<sub>6</sub>H<sub>6</sub> and after 2 hrs. with 29.6 g. Ph<sub>3</sub>SiCl, refluxed 3 hrs., cooled, filtered, and the residue washed with H<sub>2</sub>O left 9.0 g. (Ph<sub>3</sub>Si)<sub>2</sub>O, m. 218-21°; the filtrate evaporated in vacuo and the residual oil distilled gave 24 cc. MePhCHOH, bl.5 63°, and 21.1 g. MePhCHOSiPh<sub>3</sub>, bl.0 202-4°, n<sub>20</sub>D 1.6060, m. 48-9°, also obtained, m. 47-9°, bl 200-4°, n<sub>20</sub>D 1.6054, by rearrangement of III. In the same manner were prepared: Ph<sub>3</sub>SiOCH<sub>2</sub>Ph, 51%, m. 84.5-5.5° (ligroine); Ph<sub>3</sub>SiOCHMe<sub>2</sub>, 67%, m. 88-9° (iso-PrOH). Ph<sub>2</sub>CHOH (18.5 g.) in 25 cc. C<sub>5</sub>H<sub>5</sub>N and 30 cc. dry C<sub>6</sub>H<sub>6</sub> treated dropwise during 0.5 hr. with 12.8 cc. Me<sub>3</sub>SiCl, refluxed 0.5 hr., cooled, filtered, the filtrate poured into dilute HCl and extracted with C<sub>6</sub>H<sub>6</sub>, the C<sub>6</sub>H<sub>6</sub> solution extracted with acid, dried, evaporated, and the residue distilled yielded 18.9 g. Ph<sub>2</sub>CHOSiMe<sub>3</sub> (IX), b<sub>2</sub>.0 124-4.5°, n<sub>20</sub>D 1.5265, d<sub>28</sub> 0.993. I and Ph<sub>3</sub>SiCl yielded similarly 20% VIII, m. 156-7°. MePh<sub>2</sub>SiCPh<sub>2</sub>OH (1.0 g.), m. 127.5-8°, in 20 cc. dry Et<sub>2</sub>O treated with 4 drops 1:5 Na-K alloy, the mixture swirled, the Et<sub>2</sub>O solution decanted after 1 hr. into dilute HCl, dried, evaporated in vacuo, and the residue recrystd. from ligroine (b. 60-70°) yielded 0.86 g. Ph<sub>2</sub>CHOCH<sub>2</sub>SiPh<sub>3</sub>, m. 72-2.7°. Ph<sub>3</sub>SiCMe<sub>2</sub>OH (0.8 g.), m. 155-6°, in 30 cc. dry Et<sub>2</sub>O treated with a few drops Na-K alloy and the product isolated in the usual manner gave 0.11 g. Ph<sub>3</sub>SiOH, m. 150-1°, and 0.26 g. Ph<sub>3</sub>SiOCHMe<sub>2</sub>, m. 88-9°. Similarly, Ph<sub>3</sub>SiCPh<sub>2</sub>OH (X), m. 156-9°, gave during 3 min. 95% Ph<sub>3</sub>SiOCHPh<sub>2</sub>, m. 83-4°. Ph<sub>3</sub>SiCMePhOH, m. 120-2°, gave during 18 hrs. 67% Ph<sub>3</sub>SiOCHMePh, m. 48-9°; Ph<sub>3</sub>SiCHPhOH (XI), m. 116-17°, gave during 1 hr. 65% Ph<sub>3</sub>SiOCH<sub>2</sub>Ph, m. 84.5-5.5°; Ph<sub>3</sub>SiCHMeOH, m. 101-1.5°, gave during 4.5 hrs. 67% Ph<sub>3</sub>SiOCH<sub>2</sub>Me, m. 64-5°. IX, m. 57.7-9.2°, gave during 1.5 hrs. 60% Me<sub>3</sub>SiOCHPh<sub>2</sub>, bl 116°, b<sub>2</sub> 124-4.5°, n<sub>20</sub>D 1.5265, d<sub>28</sub> 0.993. VII, m. 212-14°, in 1:3 C<sub>6</sub>H<sub>6</sub>-Et<sub>2</sub>O gave in the same manner during 143 hrs. 82% VIII, m. 156-7.5°. VII (1.0 g.) in 40 cc. tetrahydrofuran treated during 20 hrs. with a few drops Na-K alloy gave 1.0 g. gummy solid which recrystd. from ligroine (b. 90-100°) gave 0.3 g. Ph<sub>3</sub>SiOH, m. 148-50°, and 0.12 g. unidentified white solid, m. 210-14°. XI (0.20 g.), 20 cc. Me<sub>2</sub>CO, 20 cc. C<sub>6</sub>H<sub>6</sub>, and 0.22 g. (iso-PrO)Al refluxed 24 hrs. and worked up in the usual manner yielded 0.19 g. (crude) Ph<sub>3</sub>SiOCH<sub>2</sub>Ph, m. 81-3°. Ph<sub>2</sub>CHOSiPh<sub>3</sub> (1.5 g.) treated during 16 hrs. with 0.5 cc. Na-K alloy in 25 cc. Et<sub>2</sub>O and the mixture worked up in the usual manner gave 0.64 g. Ph<sub>3</sub>SiOH, m. 151-2°. X (0.5 g.) in 10 cc. CCl<sub>4</sub> treated during 10 min. with a few drops Na-K alloy in the usual manner yielded only 0.42 g. unchanged X, m. 155-7°.

ACCESSION NUMBER: 1959:94560 CAPLUS  
DOCUMENT NUMBER: 53:94560  
ORIGINAL REFERENCE NO.: 53:17027a-i,17028a  
TITLE: Isomerization of some α-hydroxysilanes to silyl

ethers. II  
 AUTHOR(S): Brook, A. G.; Warner, C. M.; McGriskin, Mary E.  
 CORPORATE SOURCE: Univ. of Toronto, Can.  
 SOURCE: Journal of the American Chemical Society (1959), 81, 981-3  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 18419-82-4P, Silane, trichloro[2,2-diphenylethyl]-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 18419-82-4 CAPLUS  
 CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiCl<sub>3</sub>

L3 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB cf. C.A. 52, 7187b. Refluxing 130 g. Cl<sub>2</sub>CHSiCl<sub>3</sub>, 224 g. PhCl, and 10 g. AlCl<sub>3</sub> 64 hrs., followed by addition of 20 g. POC13 to separate the catalyst as POC13.AlCl<sub>3</sub>, gave on distillation of the filtrate 48 g. unreacted starting material and 49.5% (ClC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHSiCl<sub>3</sub>, b<sub>8</sub> 197-8°, n<sub>D</sub>20 1.5945, d<sub>20</sub> 1.4343. Similarly Cl<sub>2</sub>CHSiMeCl<sub>2</sub> and C<sub>6</sub>H<sub>6</sub> gave 5.6% Ph<sub>2</sub>CHSiMeCl<sub>2</sub>, b<sub>3</sub> 134-5°, 1.5735, 1.1917. PhCl gave 42.3% (ClC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHSiMeCl<sub>2</sub>, b<sub>4.5</sub> 196-7°, 1.5908, 1.3383, MePh gave 4.1% (MeC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHSiMeCl<sub>2</sub>, b<sub>4</sub> 159-63°, 1.5639, 1.1392. MeCCl<sub>2</sub>SiCl<sub>3</sub> and C<sub>6</sub>H<sub>6</sub> gave 38% MeCPh<sub>2</sub>SiCl<sub>3</sub>, b<sub>15</sub> 173°, 1.5845, 1.3111. PhCl gave 8.7% ClC<sub>6</sub>H<sub>4</sub>CHMeSiCl<sub>3</sub>, b<sub>3</sub> 126-8°, 1.5392, 1.3528, and 40% (ClC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CMesSiCl<sub>3</sub>, b<sub>5</sub> 226-7°, 1.5985, 1.4125. MePh gave 41% MeC<sub>6</sub>H<sub>4</sub>CHMeSiCl<sub>3</sub>, b<sub>3</sub> 96-8°, 1.5222, 1.2271, and 5.2% (MeC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CMesSiCl<sub>3</sub>, b<sub>3</sub> 156-60°, 1.5760, 1.2221. Cl<sub>2</sub>CHCH<sub>2</sub>SiCl<sub>3</sub> and C<sub>6</sub>H<sub>6</sub> gave 15% Ph<sub>2</sub>CHCH<sub>2</sub>SiCl<sub>3</sub>, b<sub>6.5</sub> 168-9°, m. 67-8°. The use of PhCl resulted in 25.8% (ClC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHCH<sub>2</sub>SiCl<sub>3</sub>, b<sub>6</sub> 198-200°, 1.5830, 1.3954, while the use of MePh gave 10.7% MeC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH<sub>2</sub>SiCl<sub>3</sub>, b<sub>3</sub> 105-6°, 1.5178, 1.2139, and 3.1% (MeC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHCH<sub>2</sub>SiCl<sub>3</sub>, b<sub>5</sub> 173-4°, m. 53-4°. Reaction of ClCH<sub>2</sub>CHClSiCl<sub>3</sub> with C<sub>6</sub>H<sub>6</sub> gave 4.2% PhCH<sub>2</sub>CH<sub>2</sub>SiCl<sub>3</sub>, b<sub>5</sub> 98-9°, 1.5180, 1.2394, and 9.5% PhCH<sub>2</sub>CHPhSiCl<sub>3</sub>, b<sub>5</sub> 162-3°, m. 60-1°. Similarly, PhCl gave 4.9% ClC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH<sub>2</sub>SiCl<sub>3</sub>, b<sub>5</sub> 122°, 1.5312, 1.3459, and 27.4% ClC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH(C<sub>6</sub>H<sub>4</sub>Cl)SiCl<sub>3</sub>, b<sub>5</sub> 207-8°, 1.5833, 1.3971, while MePh gave 19.6% MeC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH<sub>2</sub>SiCl<sub>3</sub>, b<sub>7</sub> 113-4.5°, 1.5178, 1.2125, and 5.6% MeC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH(C<sub>6</sub>H<sub>4</sub>Me)SiCl<sub>3</sub>, b<sub>7</sub> 173.5-5°, 1.5590, 1.2061. Treatment of appropriate chlorides with MeMgCl gave the following silanes: MeC<sub>6</sub>H<sub>4</sub>CHMeSiMe<sub>3</sub>, b<sub>6</sub> 88-9°, 1.4955, 0.8756; MeC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH<sub>2</sub>SiMe<sub>3</sub>, b<sub>745</sub> 222-4°, 1.4882, 0.8640. MeC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH<sub>2</sub>SiMe<sub>3</sub> (from other sources), b<sub>742</sub> 223-4°, 1.4878, 0.8637. The ultraviolet absorption spectra of the products are shown and indicate the predominance of p-isomers among the products listed above.

ACCESSION NUMBER: 1958:97653 CAPLUS  
 DOCUMENT NUMBER: 52:97653  
 ORIGINAL REFERENCE NO.: 52:17150b-f  
 TITLE: Silicoalkylation of aromatic compounds by dichloroalkylsilane chlorides  
 AUTHOR(S): Chernyshev, E. A.; Dolgaya, M. E.; Egorov, Yu. P.; Semenov, L. V.; Petrov, A. D.  
 CORPORATE SOURCE: Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow  
 SOURCE: Zhurnal Obshchei Khimii (1958), 28, 613-16  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

IT 18419-82-4P, Silane, trichloro[2,2-diphenylethyl]-  
RL: PREP (Preparation)  
(preparation of)  
RN 18419-82-4 CAPLUS  
CN Silane, trichloro(2,2-diphenylethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH-CH<sub>2</sub>-SiCl<sub>3</sub>

=> log off

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF  
LOGOFF? (Y)/N/HOLD:y  
STN INTERNATIONAL LOGOFF AT 15:15:51 ON 08 MAY 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTADEG1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPCI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/Caplus and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS	20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats

NEWS 21 APR 28 EMBASE Controlled Term thesaurus enhanced  
NEWS 22 APR 28 IMSRESEARCH reloaded with enhancements

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:20:29 ON 08 MAY 2008

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 15:20:48 ON 08 MAY 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 MAY 2008 HIGHEST RN 1019993-29-3  
DICTIONARY FILE UPDATES: 7 MAY 2008 HIGHEST RN 1019993-29-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdnoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10775510genB.str



```

chain nodes :
1 2 16 17 18
ring nodes :
3 4 5 6 7 8 9 10 11 12 13 14
chain bonds :
1-2 1-17 2-16 2-18 2-10 3-18
ring bonds :
3-4 3-8 4-5 5-6 6-7 7-8 9-10 9-14 10-11 11-12 12-13 13-14
exact/norm bonds :
2-16 2-18 3-18
exact bonds :
1-2 1-17 2-10
normalized bonds :
3-4 3-8 4-5 5-6 6-7 7-8 9-10 9-14 10-11 11-12 12-13 13-14

```

G1:CH3,H

```

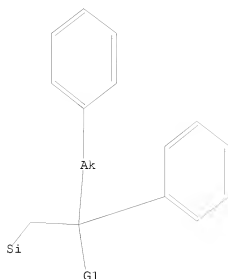
Match level :
1:CLASS 2:CLASS 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 16:CLASS 17:CLASS 18:CLASS

```

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS  
L1 STR



G1 Me,H

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full  
FULL SEARCH INITIATED 15:21:16 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 51919 TO ITERATE

100.0% PROCESSED 51919 ITERATIONS 108 ANSWERS  
SEARCH TIME: 00.00.01

L2 108 SEA SSS FUL L1

=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
178.82	179.03

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 15:22:02 ON 08 MAY 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 May 2008 VOL 148 ISS 19  
FILE LAST UPDATED: 7 May 2008 (20080507/ED)



Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 12

L3 41 L2

=> d 13 1-41 abs ibib hitstr

L3 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB A new hydrosilylative cross-coupling reaction of a variety of alkynes with several alkenes, which is catalyzed by a cationic palladium complex, [Pd( $\eta^3$ -C<sub>3</sub>H<sub>5</sub>)(cod)]+[PF<sub>6</sub>]<sup>-</sup> (A, 1 mol %) without or with added PPh<sub>3</sub> ligand, was studied systematically. The reaction using HSiCl<sub>3</sub> as an addend afforded more or less two types of products consisting of four possible derivs., CH:CR<sub>2</sub>CHR<sub>3</sub>CHR<sub>4</sub>SiCl<sub>3</sub>, which always contained 4-trichlorosilyl-1-butene frameworks, in acceptable combined yields. The coupling pattern was dependent both on the precatalyst A in the absence or presence of PPh<sub>3</sub> [also P(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>] and on the combination of the alkyne and alkene counterpart employed. A possible catalytic cycle that involves an initial hydropalladation of an alkyne, followed by a facile and specific carbopalladation of an alkene, is proposed. At the same time, the lack of regioselectivity in the latter step is noted. The effect of the added phosphine ligand on the coupling pattern is briefly discussed.

ACCESSION NUMBER: 2007:1124227 CAPLUS

DOCUMENT NUMBER: 148:11284

TITLE: Cationic palladium complex-catalyzed hydrosilylative cross-coupling of alkynes with alkenes. 1,4-addition of trichlorosilane to form 4-silyl-1-butene framework Shimamoto, Takamitsu; Chimori, Motoharu; Sogawa, Hiroaki; Harada, Yuki; Aoki, Masaharu; Yamamoto, Keiji  
CORPORATE SOURCE: Department of Materials Science and Environmental Engineering, Tokyo University of Science, Yamaguchi, 1-1-1 Daigaku-Dori, Sanyo-Onoda, Yamaguchi, 756-0884, Japan

SOURCE: Bulletin of the Chemical Society of Japan (2007), 80(9), 1814-1823

CODEN: BCSJA8; ISSN: 0009-2673

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:11284

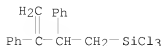
IT 872555-19-6P 872555-23-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of silylbutene framework via cationic palladium complex-catalyzed hydrosilylative cross-coupling of alkynes with alkenes in presence of trichlorosilane)

RN 872555-19-6 CAPLUS

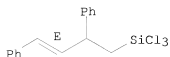
CN Benzene, 1,1'-[1-methylene-2-[(trichlorosilyl)methyl]-1,2-ethanediyl]bis- (CA INDEX NAME)



RN 872555-23-2 CAPLUS

CN Benzene, 1,1'-[(1E)-3-[(trichlorosilyl)methyl]-1-propene-1,3-diyl]bis- (CA INDEX NAME)

Double bond geometry as shown.

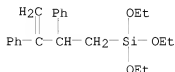


IT 872555-34-5P 872555-36-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of silylbutene framework via cationic palladium  
complex-catalyzed hydrosilylative cross-coupling of alkynes with  
alkenes in presence of trichlorosilane)

RN 872555-34-5 CAPLUS

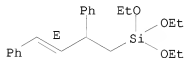
CN Benzene, 1,1'-[1-methylene-2-[(triethoxysilyl)methyl]-1,2-ethanediyl]bis-  
(CA INDEX NAME)



RN 872555-36-7 CAPLUS

CN Benzene, 1,1'-[(1E)-3-[(triethoxysilyl)methyl]-1-propene-1,3-diyl]bis-  
(CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2008 ACS ON STN

AB  $\beta$ -(Alkenyl)ethylalkoxysilanes are prepared by cross-coupling reaction  
of alkynes with alkenes in the presence of  $[(\eta^3\text{-C}_3\text{H}_5)\text{PdA}]+\text{PF}_6^-$  (A =  
1,5-cyclooctadiene, aromatic isocyanide, N-heterocyclic carbene) and optional  
PPh<sub>3</sub>, treatment with chlorohydrosilanes, and substitution of the resulting  
 $\beta$ -(alkenyl)ethylchlorosilanes with alcs. Thus, PHC.tplbond.CH was  
treated with 1-hexene in the presence of  $[(\eta^3\text{-C}_3\text{H}_5)\text{Pd}(\text{cod})]+\text{PF}_6^-$  [cod  
= 1,5-cyclooctadiene; prepared from  $[(\eta^3\text{-C}_3\text{H}_5)\text{Pd}]2\text{Cl}_2$ ,  
1,5-cyclooctadiene, and AgPF<sub>6</sub>] and treated with HSiCl<sub>3</sub> to give 60/40  
CH<sub>2</sub>:CPhCH(C<sub>4</sub>H<sub>9</sub>)CH<sub>2</sub>SiCl<sub>3</sub>/CH<sub>2</sub>:CPhCH<sub>2</sub>CH(C<sub>4</sub>H<sub>9</sub>)SiCl<sub>3</sub> mixture, which was  
substituted with EtOH.

ACCESSION NUMBER: 2007:323594 CAPLUS

DOCUMENT NUMBER: 146:358976

TITLE: Preparation of  $\beta$ -(alkenyl)ethylalkoxysilanes from  
alkynes, alkenes, and chlorohydrosilanes via  
 $\beta$ -(alkenyl)ethylchlorosilanes

INVENTOR(S): Yamamoto, Kyoji

PATENT ASSIGNEE(S): Tokyo University of Science, Japan

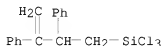
SOURCE: Jpn. Kokai Tokkyo Koho, 23pp.

CODEN: JKXXAF

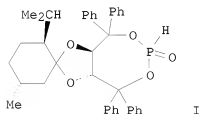
DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007070237	A	20070322	JP 2005-255983	20050905
PRIORITY APPLN. INFO.:			JP 2005-255983	20050905
OTHER SOURCE(S):			CASREACT 146:358976; MARPAT 146:358976	
IT 8/2555-19-6P				
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of $\beta$ -(alkenyl)ethylalkoxysilanes by cross-coupling of alkynes with alkenes in the presence of Pd complex catalysts, substitution with chlorohydrosilanes, and substitution with alcs.)				
RN 8/2555-19-6	CAPLUS			
CN Benzene, 1,1'-[1-methylene-2-[(trichlorosilyl)methyl]-1,2-ethanediyl]bis-				
(CA INDEX NAME)				



L3 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 GI



AB The 1-menthone-derived TADDOL phosphite I catalyzes highly enantioselective conjugate addns. of acyl silanes to  $\alpha,\beta$ -unsatd. amides. P-Methoxybenzoylcyclohexyldimethylsilane adds to a variety of N,N-dimethylacrylamides in the presence of the lithium salt of I. In many instances the  $\alpha$ -silyl- $\gamma$ -keto amide product undergoes facile enantioenrichment (to 97-99% ee) upon recrystn. Desilylation with HF-pyr affords the formal Stetter addition products. Baeyer-Villiger oxidation of the desilylated  $\gamma$ -keto amides affords useful ester products. An X-ray diffraction study of I reveals that the iso-Pr group of the menthone ketal influences the position of the syn-pseudoaxial Ph group in the TADDOL structure. Through a crossover experiment, the silicon migration step in the reaction mechanism is shown to be strictly intramol.

ACCESSION NUMBER: 2006:122067 CAPLUS  
 DOCUMENT NUMBER: 144:369738  
 TITLE: Metallophosphite-Catalyzed Asymmetric Acylation of  $\alpha,\beta$ -Unsaturated Amides  
 AUTHOR(S): Nahm, Mary R.; Potnick, Justin R.; White, Peter S.; Johnson, Jeffrey S.  
 CORPORATE SOURCE: Department of Chemistry, University of North Carolina, Chapel Hill, NC, 27599-3290, USA

SOURCE: Journal of the American Chemical Society (2006),  
128(8), 2751-2756  
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

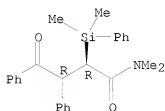
OTHER SOURCE(S): CASREACT 144:369738

IT 881883-38-1P 881883-39-2P 881883-65-4P  
881883-67-6P 881883-68-7P 881883-69-8P  
881883-70-1P 881883-71-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(metallophosphite-catalyzed asym. acylation of  $\alpha,\beta$ -unsatd.  
amides with acylsilanes)

RN 881883-38-1 CAPLUS

CN Benzenebutanamide,  $\alpha$ -(dimethylphenylsilyl)-N,N-dimethyl- $\gamma$ -oxo- $\beta$ -phenyl-, ( $\alpha R,\beta R$ )-rel- (9CI) (CA INDEX NAME)

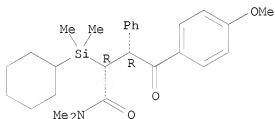
Relative stereochemistry.



RN 881883-39-2 CAPLUS

CN Benzenebutanamide,  $\alpha$ -(cyclohexyldimethylsilyl)-4-methoxy-N,N-dimethyl- $\gamma$ -oxo- $\beta$ -phenyl-, ( $\alpha R,\beta R$ )-rel- (9CI) (CA INDEX NAME)

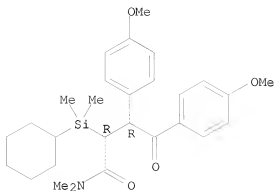
Relative stereochemistry.



RN 881883-65-4 CAPLUS

CN Benzenebutanamide,  $\alpha$ -(cyclohexyldimethylsilyl)-4-methoxy- $\beta$ -(4-methoxyphenyl)-N,N-dimethyl- $\gamma$ -oxo-, ( $\alpha R,\beta R$ )- (9CI) (CA INDEX NAME)

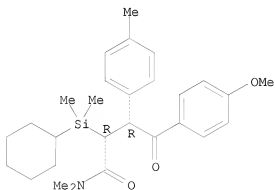
Absolute stereochemistry.



RN 881883-67-6 CAPLUS

CN Benzenebutanamide,  $\alpha$ -(cyclohexyldimethylsilyl)-4-methoxy-N,N-dimethyl- $\beta$ -(4-methylphenyl)- $\gamma$ -oxo-, ( $\alpha$ R, $\beta$ R)- (9CI)  
(CA INDEX NAME)

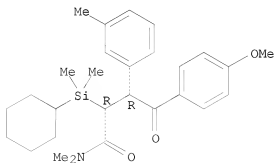
Absolute stereochemistry.



RN 881883-68-7 CAPLUS

CN Benzenebutanamide,  $\alpha$ -(cyclohexyldimethylsilyl)-4-methoxy-N,N-dimethyl- $\beta$ -(3-methylphenyl)- $\gamma$ -oxo-, ( $\alpha$ R, $\beta$ R)- (9CI)  
(CA INDEX NAME)

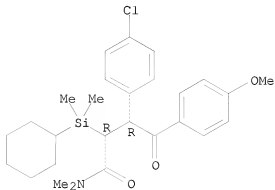
Absolute stereochemistry.



RN 881883-69-8 CAPLUS

CN Benzenebutanamide,  $\beta$ -(4-chlorophenyl)- $\alpha$ -(cyclohexyldimethylsilyl)-4-methoxy-N,N-dimethyl- $\gamma$ -oxo-, ( $\alpha$ R, $\beta$ R)- (9CI) (CA INDEX NAME)

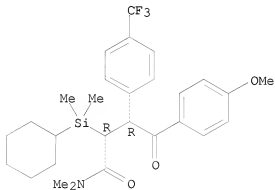
Absolute stereochemistry.



RN 881883-70-1 CAPLUS

CN Benzenebutanamide,  $\alpha$ -(cyclohexyldimethylsilyl)-4-methoxy-N,N-dimethyl- $\gamma$ -oxo- $\beta$ -[4-(trifluoromethyl)phenyl]-, ( $\alpha$ R, $\beta$ R)- (9CI) (CA INDEX NAME)

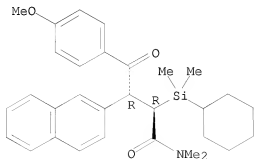
Absolute stereochemistry.



RN 881883-71-2 CAPLUS

CN 2-Naphthalenepropanamide,  $\alpha$ -(cyclohexyldimethylsilyl)- $\beta$ -(4-methoxybenzoyl)-N,N-dimethyl-, ( $\alpha$ R, $\beta$ R)- (CA INDEX NAME)

Absolute stereochemistry.

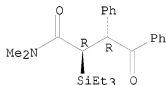


IT 905948-10-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(metallophosphite-catalyzed asym. acylation of  $\alpha,\beta$ -unsatd.

amides with acylsilanes)  
 RN 905948-10-9 CAPLUS  
 CN Benzenebutamide, N,N-dimethyl- $\gamma$ -oxo- $\beta$ -phenyl- $\alpha$ -  
 (triethylsilyl)-, ( $\alpha$ R, $\beta$ R)-rel- (9CI) (CA INDEX NAME)

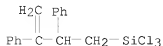
Relative stereochemistry.



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2008 ACS ON STN  
 AB A cationic palladium complex-catalyzed cross-coupling of alkynes with alkenes is presented, which occurs selectively under the hydrosilylation conditions using trichlorosilane. The unique reaction might be well understood in terms of an initial hydropalladation of a given 1-alkyne to form regioselectively a 1-alkenylpalladium species, which, in turn, undergoes easily and specifically an alkene insertion. The resulting homoallylic organopalladium species terminates one catalytic cycle by substituting the palladium center with a trichlorosilyl group to give product(s).

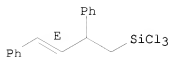
ACCESSION NUMBER: 2005:1184881 CAPLUS  
 DOCUMENT NUMBER: 144:88343  
 TITLE: Cationic Palladium-Catalyzed Hydrosilylative Cross-Coupling of Alkynes with Alkenes  
 AUTHOR(S): Shimamoto, Takamitsu; Chimori, Motoharu; Sogawa, Hiroaki; Yamamoto, Keiji  
 CORPORATE SOURCE: Department of Materials Science and Environmental Engineering, Tokyo University of Science, Yamaguchi 1-1-1 Daigaku-Dori, Sanyo-Onoda, Yamaguchi, 756-0884, Japan  
 SOURCE: Journal of the American Chemical Society (2005), 127(47), 16410-16411  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 144:88343  
 IT 872555-19-6P 872555-23-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (cationic palladium-catalyzed hydrosilylative cross-coupling of alkynes with alkenes)  
 RN 872555-19-6 CAPLUS  
 CN Benzene, 1,1'-[1-methylene-2-[(trichlorosilyl)methyl]-1,2-ethanediyl]bis- (CA INDEX NAME)



RN 872555-23-2 CAPLUS  
 CN Benzene, 1,1'-[1-(1E)-3-[(trichlorosilyl)methyl]-1-propene-1,3-diyl]bis-

(CA INDEX NAME)

Double bond geometry as shown.

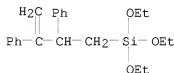


IT 872555-34-5P 872555-36-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(cationic palladium-catalyzed hydrosilylative cross-coupling of alkynes  
with alkenes)

RN 872555-34-5 CAPLUS

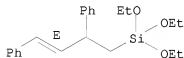
CN Benzene, 1,1'-[1-methylene-2-[(triethoxysilyl)methyl]-1,2-ethanediyl]bis-  
(CA INDEX NAME)



RN 872555-36-7 CAPLUS

CN Benzene, 1,1'-[(1E)-3-[(triethoxysilyl)methyl]-1-propene-1,3-diyl]bis-  
(CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2008 ACS ON STN

AB 3-Methoxyacylsilanes undergo stereoselective addition of organometallic  
nucleophiles, affording 1,3-syn- and 1,3-anti-3-methoxy-1-  
hydroxyalkylsilanes, which were converted to the corresponding 1,3-diol  
ethers by protiodesilylation. Reaction of RCH(OMe)CH<sub>2</sub>COSiMe<sub>3</sub> with R<sub>1</sub>M (M  
= Li, MgBr, AlMe<sub>2</sub>, CeCl<sub>2</sub>) gave RCH(OMe)CH<sub>2</sub>CR<sub>1</sub>(OH)SiMe<sub>3</sub> (R = Ph, Me, n-Pr,  
iPr); organolithium reagents gave predominantly 1,3-anti-diastereomers,  
whereas methylcerium and trialkylaluminum gave the 1,3-syn-isomers. Addition  
of MeLi to 2,3-anti-RCH(OMe)CHPhCOSiMe<sub>3</sub> gave 1,2-syn-  
RCH(OMe)CHPhCMe(OH)SiMe<sub>3</sub> (5a,b, R = Ph, Me) trimethylaluminum gave rise to  
1,2-anti-RCH(OMe)CHPhCMe(OH)SiMe<sub>3</sub> (4a,b; same R). The stereoselectivity  
of 1,3-asm. induction in the nucleophilic addition to β-  
methoxyacylsilanes is largely dependent on the kind of nucleophiles. The  
protiodesilylation of the resulting α-silylals. proceeds with  
complete retention of the configuration.

ACCESSION NUMBER: 2005:1160096 CAPLUS

DOCUMENT NUMBER: 144:36393

TITLE: Stereoselective construction of 1,3-diol derivatives  
via nucleophilic reaction to β-methoxyacylsilanes  
AUTHOR(S): Honda, Mitsunori; Mikami, Yoshimi; Sanjyo, Takeshi;  
Segi, Masahito; Nakajima, Tadashi



CORPORATE SOURCE: Division of Material Sciences, Graduate School of  
Natural Science and Technology, Kanazawa University,  
Kakuma-machi, Kanazawa, 920-1192, Japan

SOURCE: Chemistry Letters (2005), 34(10), 1432-1433  
CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

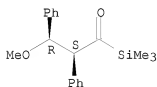
OTHER SOURCE(S): CASREACT 144:36393

IT 482662-09-9 626235-41-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of syn- and anti-isomers of 1-silyl 3-methoxy-1-alkanols by  
stereoselective nucleophilic addition of lithium, aluminum and cerium  
organometallic compds. to acylsilanes)

RN 482662-09-9 CAPLUS

CN Silane, [(2R,3S)-3-methoxy-1-oxo-2,3-diphenylpropyl]trimethyl-, rel- (9CI)  
(CA INDEX NAME)

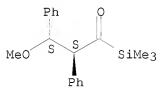
Relative stereochemistry.



RN 626235-41-4 CAPLUS

CN Silane, [(2R,3R)-3-methoxy-1-oxo-2,3-diphenylpropyl]trimethyl-, rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.

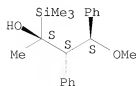


IT 626235-47-0P 626235-48-1P 870699-88-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of syn- and anti-isomers of 1-silyl 3-methoxy-1-alkanols by  
stereoselective nucleophilic addition of lithium, aluminum and cerium  
organometallic compds. to acylsilanes)

RN 626235-47-0 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\alpha$ -methyl- $\beta$ -phenyl- $\alpha$ -  
(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ R)-rel- (CA INDEX NAME)

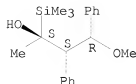
Relative stereochemistry.



RN 626235-48-1 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\alpha$ -methyl- $\beta$ -phenyl- $\alpha$ -  
(trimethylsilyl)-, ( $\alpha$ R, $\beta$ S, $\gamma$ S)-rel- (CA INDEX NAME)

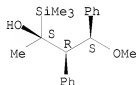
Relative stereochemistry.



RN 870699-88-0 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\alpha$ -methyl- $\beta$ -phenyl- $\alpha$ -  
(trimethylsilyl)-, ( $\alpha$ R, $\beta$ S, $\gamma$ R)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB A reference to Reich et al. is added. Reference [10] should read as "(a) H. J. Reich, R. C. Holtan, C. Bolm, J. Am. Chemical Society 1990, 112, 5609-5617; (b) K. Takeda, T. Tanaka, Synlett 1999, 705-708."

ACCESSION NUMBER: 2005:780897 CAPLUS

DOCUMENT NUMBER: 143:386980

TITLE: Metallophosphite-induced nucleophilic acylation of  $\alpha,\beta$ -unsaturated amides: Facilitated catalysis by a diastereoselective retro [1,4] Brook rearrangement. [Erratum to document cited in CA143:078142]

AUTHOR(S): Nahm, Mary R.; Xin, Linghu; Potnick, Justin R.; Yates, Christopher M.; White, Peter S.; Johnson, Jeffrey S.

CORPORATE SOURCE: Department of Chemistry, University of North Carolina, Chapel Hill, Chapel Hill, NC, 27599-3290, USA

SOURCE: Angewandte Chemie, International Edition (2005), 44(30), 4660

PUBLISHER: CODEN: ACIEF5; ISSN: 1433-7851

DOCUMENT TYPE: Wiley-VCH Verlag GmbH & Co. KGaA

LANGUAGE: Journal

IT English

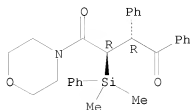
IT 855333-38-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of  $\alpha$ -silyl  $\gamma$ -keto amide derivs. via stereoselective conjugate addition using benzoyl silanes (aldehyde surrogates) and Michael acceptors as reactants and 1,3-dioxolo[4,5-e][1,3,2]dioxaphosphepin oxide derivative (phosphite) as catalyst)

RN 855333-38-9 CAPLUS

CN 1,4-Butanedione, 2-(dimethylphenylsilyl)-1-(4-morpholinyl)-3,4-diphenyl-,  
(2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 855333-20-9P 855333-21-0P 855333-22-1P

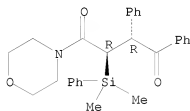
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of  $\alpha$ -silyl  $\gamma$ -keto amide derivs. via stereoselective conjugate addition using benzoyl silanes (aldehyde surrogates) and Michael acceptors as reactants and phosphite derivative as catalyst (Erratum))

RN 855333-20-9 CAPLUS

CN 1,4-Butanedione, 2-(dimethylphenylsilyl)-1-(4-morpholinyl)-3,4-diphenyl-, (2R,3R)-rel- (CA INDEX NAME)

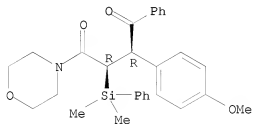
Relative stereochemistry.



RN 855333-21-0 CAPLUS

CN 1,4-Butanedione, 2-(dimethylphenylsilyl)-3-(4-methoxyphenyl)-1-(4-morpholinyl)-4-phenyl-, (2R,3R)-rel- (CA INDEX NAME)

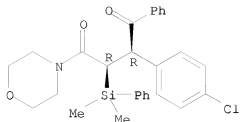
Relative stereochemistry.



RN 855333-22-1 CAPLUS

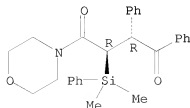
CN 1,4-Butanedione, 2-(4-chlorophenyl)-3-(dimethylphenylsilyl)-4-(4-morpholinyl)-1-phenyl-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Intermol. alkene acylation reactions between acyl silanes and  
 $\alpha,\beta$ -unsatd. amides with metallo phosphite catalysis afford  
 $\alpha$ -silyl  $\gamma$ -keto amide derivs. with high diastereoselectivity.  
 These can be converted into the corresponding  $\gamma$ -keto amide derivs.  
 and  $\alpha$ -bromo  $\gamma$ -keto amide derivs. Asym. catalysis of the  
 acylation delivers the  $\gamma$ -keto amide in the highest  
 enantioselectivity yet reported for an intermol. Stetter-type reaction.  
 ACCESSION NUMBER: 2005:390712 CAPLUS  
 DOCUMENT NUMBER: 143:78142  
 TITLE: Metallophosphite-induced nucleophilic acylation of  
 $\alpha,\beta$ -unsaturated amides: Facilitated  
 catalysis by a diastereoselective retro [1,4] Brook  
 rearrangement  
 AUTHOR(S): Nahm, Mary R.; Xin, Linghu; Potnick, Justin R.; Yates,  
 Christopher M.; White, Peter S.; Johnson, Jeffrey S.  
 CORPORATE SOURCE: Department of Chemistry, University of North Carolina,  
 Chapel Hill, Chapel Hill, NC, 27599-3290, USA  
 SOURCE: Angewandte Chemie, International Edition (2005),  
 44(16), 2377-2379  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 143:78142  
 IT 855333-38-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of  $\alpha$ -silyl  $\gamma$ -keto amide derivs. via stereoselective  
 conjugate addition using benzoyl silanes (aldehyde surrogates) and Michael  
 acceptors as reactants and 1,3-dioxolo[4,5-e][1,3,2]dioxaphosphepin  
 oxide derivative (phosphite) as catalyst)  
 RN 855333-38-9 CAPLUS  
 CN 1,4-Butanedione, 2-(dimethylphenylsilyl)-1-(4-morpholinyl)-3,4-diphenyl-,  
 (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 855333-20-9P 855333-21-0P 855333-22-1P

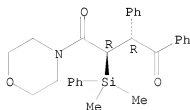
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of  $\alpha$ -silyl  $\gamma$ -keto amide derivs. via stereoselective conjugate addition using benzoyl silanes (aldehyde surrogates) and Michael acceptors as reactants and phosphite derivative as catalyst)

RN 855333-20-9 CAPLUS

CN 1,4-Butanedione, 2-(dimethylphenylsilyl)-1-(4-morpholinyl)-3,4-diphenyl-, (2R,3R)-rel- (CA INDEX NAME)

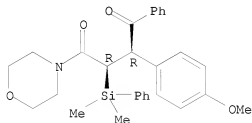
Relative stereochemistry.



RN 855333-21-0 CAPLUS

CN 1,4-Butanedione, 2-(dimethylphenylsilyl)-3-(4-methoxyphenyl)-1-(4-morpholinyl)-4-phenyl-, (2R,3R)-rel- (CA INDEX NAME)

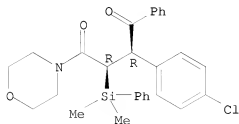
Relative stereochemistry.



RN 855333-22-1 CAPLUS

CN 1,4-Butanedione, 2-(4-chlorophenyl)-3-(dimethylphenylsilyl)-4-(4-morpholinyl)-1-phenyl-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

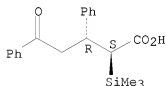
L3 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2008 ACS ON STN

AB The reaction of C,O,O-tris(trimethylsilyl)ketene acetal 1 with saturated, cyclic and aromatic ketones 2 (e.g., CH3C(O)Ph) proceeds smoothly in the presence of TiCl4 to give (E)- $\alpha,\beta$ -unsatd. carboxylic acids 3

(e.g., (E)-PhCMe:CHCO<sub>2</sub>H) with fairly good stereoselectivity. With  $\alpha,\beta$ -unsatd. ketones 4 (e.g., CH<sub>3</sub>C(O)CH:CHPh),  $\alpha$ -trimethylsilyl  $\delta$ -ketoacids 5 [syn + anti; e.g., CH<sub>3</sub>C(O)CH<sub>2</sub>CHPhCH(SiMe<sub>3</sub>)CO<sub>2</sub>H] were obtained according to Michael-type 1,4 addition. These diastereoisomers are separated and the configurations of 5a are achieved by x-ray mol. anal.

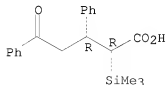
ACCESSION NUMBER: 2005:358698 CAPLUS  
DOCUMENT NUMBER: 143:60027  
TITLE: Two-carbon homologation of ketones via silyl ketene acetals: synthesis of  $\alpha,\beta$ -unsaturated acids and  $\alpha$ -trimethylsilyl  $\delta$ -ketoacids  
AUTHOR(S): Bellassoued, Moncef; Mouelhi, Sinda; Fromentin, Pierre; Gonzalez, Aurelien  
CORPORATE SOURCE: Laboratoire de Synthese Organometallique, Universite de Cergy-Pontoise, Cergy-Pontoise, 95031, Fr.  
SOURCE: Journal of Organometallic Chemistry (2005), 690(9), 2172-2179  
CODEN: JORCAI; ISSN: 0022-328X  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 143:60027  
IT 854198-42-8P 854198-56-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(stereoselective reaction of tris(trimethylsilyl)ketene acetal with unsatd. ketones in presence of titanium chloride to give silylated ketoacids)  
RN 854198-42-8 CAPLUS  
CN Benzenepropanoic acid,  $\beta$ -(2-oxo-2-phenylethyl)- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 854198-56-4 CAPLUS  
CN Benzenepropanoic acid,  $\beta$ -(2-oxo-2-phenylethyl)- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R)-rel- (CA INDEX NAME)

Relative stereochemistry.



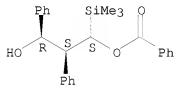
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2008 ACS ON STN  
AB The treatment of acetyltrimethylsilane with LDA, followed by reaction of the resulting enolate with the excess amount of aldehydes gave the corresponding 1,3-diol derivs. in moderate yields with perfect

diastereoselectivity as a single regioisomer via tandem aldol-Tishchenko reaction, whereas the reaction with  $\alpha$ -branched aldehydes under similar conditions gives a mixture of two regioisomers. The reaction using benzyl trimethylsilyl ketone afforded the corresponding 1,3-diol monoesters having three contiguous stereogenic centers with perfect levels of stereochem. control in 1-pot.

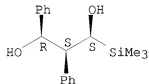
ACCESSION NUMBER: 2005:351230 CAPLUS  
DOCUMENT NUMBER: 143:43919  
TITLE: Stereoselective tandem aldol-tishchenko reaction with acylsilanes  
AUTHOR(S): Honda, Mitsunori; Iwamoto, Ryota; Nogami, Yoshie; Segi, Masahito  
CORPORATE SOURCE: Division of Material Sciences, Graduate School of Natural Science and Technology, Kanazawa University, Kanazawa, 920-1192, Japan  
SOURCE: Chemistry Letters (2005), 34(4), 466-467  
CODEN: CMLTAG; ISSN: 0366-7022  
PUBLISHER: Chemical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 143:43919  
IT 853601-60-2P 853601-69-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(stereoselective tandem aldol-tishchenko reaction of aldehydes with acylsilanes to give 1,3-diol derivs.)  
RN 853601-60-2 CAPLUS  
CN 1,3-Propanediol, 2,3-diphenyl-1-(trimethylsilyl)-, 1-benzoate, (1S,2S,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



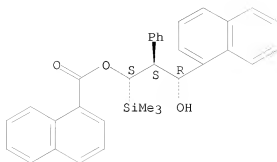
RN 853601-69-1 CAPLUS  
CN 1,3-Propanediol, 1,2-diphenyl-3-(trimethylsilyl)-, (1R,2S,3S)-rel- (CA INDEX NAME)

Relative stereochemistry.



IT 853601-61-3P 853601-62-4P 853601-63-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(stereoselective tandem aldol-tishchenko reaction of aldehydes with acylsilanes to give 1,3-diol derivs.)  
RN 853601-61-3 CAPLUS  
CN 1-Naphthalenecarboxylic acid, (1R,2R,3S)-3-hydroxy-3-(1-naphthalenyl)-2-phenyl-1-(trimethylsilyl)propyl ester, rel- (CA INDEX NAME)

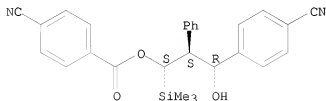
Relative stereochemistry.



RN 853601-62-4 CAPLUS

CN Benzoic acid, 4-cyano-, (1R,2R,3S)-3-(4-cyanophenyl)-3-hydroxy-2-phenyl-1-(trimethylsilyl)propyl ester, rel- (CA INDEX NAME)

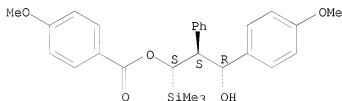
Relative stereochemistry.



RN 853601-63-5 CAPLUS

CN Benzoic acid, 4-methoxy-, (1R,2R,3S)-3-(4-methoxyphenyl)-3-hydroxy-2-phenyl-1-(trimethylsilyl)propyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB Immobilization of a platinum catalyst was carried out on the basis of the polymer incarcerated (PI) method. The PI platinum catalyst thus prepared showed high activity in hydrosilylation, and recovery and reuse of the catalyst were attained without loss of activity. Application of this catalyst to hydrogenation is also reported.

ACCESSION NUMBER: 2005:308285 CAPLUS

DOCUMENT NUMBER: 143:27005

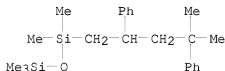
TITLE: Immobilization of a platinum catalyst using the polymer incarcerated (PI) method and application to catalytic reactions

AUTHOR(S): Hagio, Hiroyuki; Sugiura, Masaharu; Kobayashi, Shu

CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, 113-0033, Japan



SOURCE: Synlett (2005), (5), 813-816  
 CODEN: SYNLSE; ISSN: 0936-5214  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 143:27005  
 IT 852814-20-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (hydrosilylation and hydrogenation with polymer incarcerated platinum catalyst)  
 RN 852814-20-1 CAPLUS  
 CN Disiloxane, pentamethyl(4-methyl-2,4-diphenylpentyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB A highly regio- and stereoselective method for the synthesis of various 2-silylallylboronates (7) from allenes 1 and 2-(dimethylphenylsilyl)-4,4,5,5-tetramethyl[1,3,2]dioxaborolane (5) catalyzed by Pd complexes and initiated by organic iodides is described. Treatment of monosubstituted aryl and alkylallenes RCH:C:CH<sub>2</sub> (1a-m) and 1,1-dimethylallene (1n) with borylsilane 5 in the presence of Pd(dba)<sub>2</sub> (5 mol %) and 3-iodo-2-methylcyclohex-2-enone (3a) (10 mol %) afforded the corresponding silaboration products 7a-n in moderate to excellent yields. This catalytic silaboration is totally regioselective with the silyl group of 5 adding to the central C and the boryl group to the unsubstituted terminal C of allene. Furthermore, the reactions show very high E stereoselectivity with the Z/E ratios lying in the range from 1/99 to 7/93. In the absence of an organic iodide, silaboration of 1 with 5 still proceeds, but gives products having completely different regiochem. as that of 7. The silaboration chemical can be applied to the synthesis of homoallylic alcs. Treatment of allenes (e.g. PhCH:C:CH<sub>2</sub>) with borylsilane 5 and aldehydes (e.g. PhCHO) in the presence of Pd(dba)<sub>2</sub> (5 mol %) and 3a (10 mol %) at 80° in EtOAc for 5 h afforded homoallylic alcs. (e.g. PhCH(OH)CHPhC(SiMe<sub>2</sub>Ph):CH<sub>2</sub>) in one pot in good to excellent yields, with exceedingly high syn selectivity (>93%). Mechanistic pathways involving an unusual Pd-catalyzed three-component assembling reaction of dimethylphenylsilyl iodide, allene 1, and borylsilane 5 are proposed to account for these catalytic reactions.

ACCESSION NUMBER: 2004:1048888 CAPLUS  
 DOCUMENT NUMBER: 142:156052  
 TITLE: Unusual Palladium-Catalyzed Silaboration of Allenes Using Organic Iodides as Initiators: Mechanism and Application  
 AUTHOR(S): Chang, Kuo-Jui; Rayabarapu, Dinesh Kumar; Yang, Feng-Yu; Cheng, Chien-Hong  
 CORPORATE SOURCE: Department of Chemistry, Tsing Hua University, Hsinchu, 30013, Taiwan  
 SOURCE: Journal of the American Chemical Society (2005), 127(1), 126-131  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society

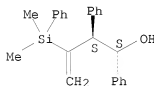
DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 142:156052

IT 827575-10-0P, (1S\*,2S\*)-3-[Di(methyl)(phenyl)silyl]-1,2-diphenyl-3-buten-1-ol 827575-11-1P, (1S\*,2S\*)-3-[Di(methyl)(phenyl)silyl]-1-(4-methoxyphenyl)-2-phenyl-3-buten-1-ol 827575-12-2P, (1S\*,2S\*)-1-(4-Acetoxyphenyl)-3-[di(methyl)(phenyl)silyl]-2-phenyl-3-buten-1-ol 827575-13-3P, (1S\*,2S\*)-1-(4-Chlorophenyl)-3-[di(methyl)(phenyl)silyl]-2-phenyl-3-buten-1-ol 827575-14-4P, (1S\*,2S\*)-3-[Di(methyl)(phenyl)silyl]-2-phenyl-1-(4-tolyl)-3-buten-1-ol 827575-15-5P, (1S\*,2S\*)-1-(4-Acetylphenyl)-3-[di(methyl)(phenyl)silyl]-2-phenyl-3-buten-1-ol 827575-16-6P, (1S\*,2S\*)-1-(4-Cyanophenyl)-3-[di(methyl)(phenyl)silyl]-2-phenyl-3-buten-1-ol 827575-20-2P, (1S\*,2S\*)-2-(4-Acetylphenyl)-3-[di(methyl)(phenyl)silyl]-1-phenyl-3-buten-1-ol 827575-21-3P, (1S\*,2S\*)-3-[Di(methyl)(phenyl)silyl]-2-[4-(ethoxycarbonyl)phenyl]-1-phenyl-3-buten-1-ol 827575-22-4P, (1S\*,2S\*)-3-[Di(methyl)(phenyl)silyl]-2-(4-methoxyphenyl)-1-phenyl-3-buten-1-ol  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (mechanism and application of unusual regioselective/stereoselective palladium-catalyzed silaboration of allenes using organic iodides as initiators)

RN 827575-10-0 CAPLUS

CN Benzeneethanol,  $\beta$ -[1-(dimethylphenylsilyl)ethenyl]- $\alpha$ -phenyl-, (1R,2R)-rel- (CA INDEX NAME)

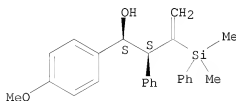
Relative stereochemistry.



RN 827575-11-1 CAPLUS

CN Benzeneethanol,  $\beta$ -[1-(dimethylphenylsilyl)ethenyl]- $\alpha$ -(4-methoxyphenyl)-, (1R,2R)-rel- (CA INDEX NAME)

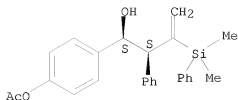
Relative stereochemistry.



RN 827575-12-2 CAPLUS

CN Benzeneethanol,  $\alpha$ -[4-(acetoxy)phenyl]- $\beta$ -[1-(dimethylphenylsilyl)ethenyl]-, (1R,2R)-rel- (CA INDEX NAME)

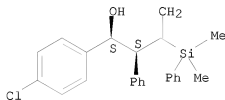
Relative stereochemistry.



RN 827575-13-3 CAPLUS

CN Benzeneethanol,  $\alpha$ -(4-chlorophenyl)- $\beta$ -[1-(dimethylphenylsilyl)ethenyl]-, ( $\alpha$ R, $\beta$ R)-rel- (CA INDEX NAME)

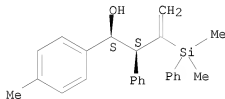
Relative stereochemistry.



RN 827575-14-4 CAPLUS

CN Benzeneethanol,  $\beta$ -[1-(dimethylphenylsilyl)ethenyl]- $\alpha$ -(4-methylphenyl)-, ( $\alpha$ R, $\beta$ R)-rel- (CA INDEX NAME)

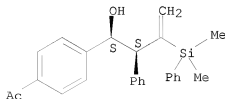
Relative stereochemistry.



RN 827575-15-5 CAPLUS

CN Ethanone, 1-[4-[(1R,2R)-3-(dimethylphenylsilyl)-1-hydroxy-2-phenyl-3-buten-1-yl]phenyl]-, rel- (CA INDEX NAME)

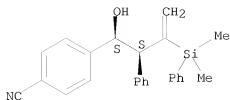
Relative stereochemistry.



RN 827575-16-6 CAPLUS

CN Benzonitrile, 4-[(1R,2R)-3-(dimethylphenylsilyl)-1-hydroxy-2-phenyl-3-buten-1-yl]-, rel- (CA INDEX NAME)

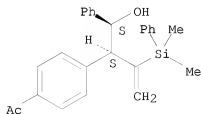
Relative stereochemistry.



RN 827575-20-2 CAPLUS

CN Ethanone, 1-[4-[(1S)-2-(dimethylphenylsilyl)-1-[(S)-hydroxyphenylmethyl]-2-propen-1-yl]phenyl]-, rel- (CA INDEX NAME)

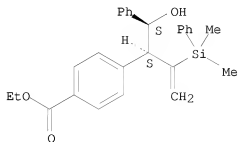
Relative stereochemistry.



RN 827575-21-3 CAPLUS

CN Benzoic acid, 4-[(1R)-2-(dimethylphenylsilyl)-1-[(R)-hydroxyphenylmethyl]-2-propen-1-yl]-, ethyl ester, rel- (CA INDEX NAME)

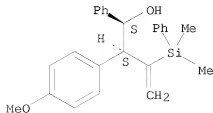
Relative stereochemistry.



RN 827575-22-4 CAPLUS

CN Benzeneethanol,  $\beta$ -[1-(dimethylphenylsilyl)ethenyl]-4-methoxy- $\alpha$ -phenyl-, ( $\alpha$ R, $\beta$ R)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT:

95

THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB The cosmetics contain MDxD'y(Dq)zM [I; M = R3SiO0.5; D = R2SiO; D' = RR'SiO; Dq = RQSiO; R = (un)substituted hydrocarbyl; R' = 2,4-diphenyl-4-methylpentyl; Q = RaO(C2H4O)p(C3H6O)sRb; Ra = CmH2m; Rb = H, C1-6 alkyl; m = 2-8; p, s = 0-50; p + s ≥ 1; x = 0-1000; y = 1-100; z = 1-50] manufactured by hydrolysis of silanes containing Me2CPhCH2CHPhCH2SiX2R [X = hydrolyzable group; R = (un)substituted hydrocarbyl], equilibration of the hydrolyzates, reaction with polyorganosiloxanes, and addition reaction with alkenyl-containing polyethers. The polymers show good compatibility with oils and high water-holding capacity and provide cosmetics with good moisturizing effect, spreadability, luster, and no stickiness. A foundation containing I [R = Me, Q = (CH2)3O(C2H4O)6Me, x = 19, y = 12, z = 4] was formulated.

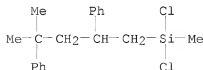
ACCESSION NUMBER: 2004:756362 CAPLUS  
 DOCUMENT NUMBER: 141:265590  
 TITLE: Polyether-modified polyorganosiloxanes, their manufacture, and skin cosmetics containing them  
 INVENTOR(S): Suenaga, Hiroshi; Chen, Hsiang; Kida, Shinji  
 PATENT ASSIGNEE(S): GE Toshiba Silicone Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2004256661	A	20040916	JP 2003-48683	20030226
PRIORITY APPLN. INFO.:				JP 2003-48683	20030226
IT	756511-36-1DP, trimethylsilyl-terminated trimethylsilyl-terminated			756819-55-3DP,	
	RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (comprised of actual and assumed monomers; manufacture of polyether-modified polyorganosiloxanes for skin cosmetics)				
RN	756511-36-1 CAPLUS				
CN	Silanediol, methyl-, polymer with dichlorodimethylsilane, dichloromethyl(4-methyl-2,4-diphenylpentyl)silane and α-methyl-ω-(2-propenyloxy)poly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)				

CM 1

CRN 753002-84-5

CMF C19 H24 C12 Si



CM 2

CRN 43641-90-3

CMF C H6 O2 Si



CM 3

CRN 27252-80-8  
 CMF (C2 H4 O)n C4 H8 O  
 CCI PMS



CM 4

CRN 75-78-5  
 CMF C2 H6 Cl2 Si



RN 756819-55-3 CAPLUS  
 CN Silanediol, methyl-, polymer with dichlorodimethylsilane,  
 dichloromethyl(4-methyl-2,4-diphenylpentyl)silane and oxirane, methyl  
 ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
 CMF C H4 O

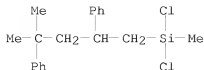


CM 2

CRN 756819-54-2  
 CMF (C19 H24 Cl2 Si . C2 H6 Cl2 Si . C2 H4 O . C H6 O2 Si)x  
 CCI PMS

CM 3

CRN 753002-84-5  
 CMF C19 H24 Cl2 Si



CM 4

CRN 43641-90-3

CMF C H6 O2 Si



CM 5

CRN 75-78-5

CMF C2 H6 Cl2 Si



CM 6

CRN 75-21-8

CMF C2 H4 O



L3 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB Title polymers containing siloxane units containing 2,4-diphenyl-4-methylpentyl group on Si are manufactured by hydrolysis of  $\text{Me}_2\text{CPhCH}_2\text{CHPhCH}_2\text{SiXnR}_3\text{-n}$  [X = hydrolyzable group; R = (un)substituted hydrocarbyl; n = 1-3] and equilibration of the hydrolyzates. Alternatively, the polymers are manufactured by addition reaction of polyorganohydrogensiloxanes with  $\text{Me}_2\text{CPhCH}_2\text{CHPhCH}_2$  in the presence of Pt catalysts. Thus, 2,4-diphenyl-4-methylpentyldichlorosilane (sic),  $\text{Me}_2\text{SiCl}_2$ , and  $\text{Me}_3\text{SiCl}$  were hydrolyzed, neutralized, and equilibrated using KOH to give MD25D'25M (M =  $\text{Me}_3\text{SiO}$ 0.5, D =  $\text{Me}_2\text{SiO}$ , D' =  $\text{MeR'SiO}$ , R' = 2,4-diphenyl-4-methylpentyl) showing refractive index 1.535.

ACCESSION NUMBER: 2004:753450 CAPLUS

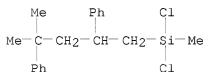
DOCUMENT NUMBER: 141:244368

TITLE: Novel polyorganosiloxanes with high refractive index and their manufacture

INVENTOR(S): Suenaga, Hiroshi; Chen, Qian; Kida, Shinji

PATENT ASSIGNEE(S): GE Toshiba Silicone Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2004256660	A	20040916	JP 2003-48682	20030226
PRIORITY APPLN. INFO.:				JP 2003-48682	20030226
IT	753002-86-7DP, trimethylsilyl-terminated				
	RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (comprised of actual and assumed monomers; manufacture of polyorganosiloxanes with high refractive index)				
RN	753002-86-7 CAPLUS				
CN	Silanediol, methyl-, polymer with dichlorodimethylsilane and dichloromethyl(4-methyl-2,4-diphenylpentyl)silane (9CI) (CA INDEX NAME)				
CM	1				
CRN	753002-84-5				
CMF	C19 H24 Cl2 Si				



CM 2

CRN 43641-90-3  
 CMF C H6 O2 Si



CM 3

CRN 75-78-5  
 CMF C2 H6 Cl2 Si



IT 753002-85-6DP, trimethylsilyl-terminated  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
 (manufacture of polyorganosiloxanes with high refractive index)



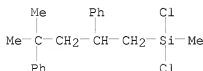
RN 753002-85-6 CAPLUS

CN Silane, dichlorodimethyl-, polymer with dichloromethyl(4-methyl-2,4-diphenylpentyl)silane, hydrolytic (9CI) (CA INDEX NAME)

CM 1

CRN 753002-84-5

CMF C19 H24 Cl2 Si



CM 2

CRN 7732-18-5

CMF H2 O

H<sub>2</sub>O

CM 3

CRN 75-78-5

CMF C2 H6 Cl2 Si



L3 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB PhCMe<sub>2</sub>CH<sub>2</sub>CHPhCH<sub>2</sub>SiX<sub>n</sub>R<sub>3-n</sub> [I; X = hydrolyzable group; R = (un)substituted hydrocarbyl; n = 0-3] are manufactured by addition reaction of PhCMe<sub>2</sub>CH<sub>2</sub>CHPh:CH<sub>2</sub>

(II) by HSiX<sub>n</sub>R<sub>3-n</sub> (X, R, n = same as I) in the presence of Pt catalysts.

Thus, II was hydrosilylated by MeSiHCl<sub>2</sub> in PhMe in the presence of chloroplatinic acid at 70-80° to give 91.3% I (X = Cl, R = Me, n = 2), which showed refractive index (at 25°) 1.5404.

ACCESSION NUMBER: 2004:753393 CAPLUS

DOCUMENT NUMBER: 141:261190

TITLE: (Diphenylpentyl)silanes for manufacture of polysiloxanes with high refractive index, and their manufacture

INVENTOR(S): Suenaga, Hiroshi; Chen, Qian

PATENT ASSIGNEE(S): GE Toshiba Silicone Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

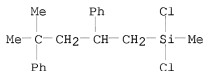
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2004256439	A	20040916	JP 2003-48681	20030226
PRIORITY APPLN. INFO.:				JP 2003-48681	20030226
OTHER SOURCE(S):	MARPAT 141:261190				
IT	753002-84-5P				
	RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (manufacture of (diphenylmethylpentyl)silanes by hydrosilylation for polysiloxanes with high refractive index)				
RN	753002-84-5 CAPLUS				
CN	Silane, dichloromethyl(4-methyl-2,4-diphenylpentyl)- (9CI) (CA INDEX NAME)				



L3 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB The lithium enolate generated from Me<sub>3</sub>SiCH<sub>2</sub>CO<sub>2</sub>CH(CHMe)<sub>2</sub> (I) with LDA in the presence of (R,R)-1,2-dimethoxy-1,2-diphenylethane adds stereoselectively to acyclic and cyclic α,β-unsatd. ketones to give Michael addition products in up to 74% ee. Addition of the lithium enolate

generated from I with LDA in the presence of (R,R)-1,2-dimethoxy-1,2-diphenylethane to (E)-PhCH:CHCOCMe<sub>3</sub> yields the Michael addition product in 24% yield and 54% ee along with 32% of the alc. (E)-PhCH:CHCH(OH)CMe<sub>3</sub>. The use of other chiral ligands such as (-)-sparteine, (R,R)-Me<sub>2</sub>NCHPhCHPhOCH<sub>2</sub>CH<sub>2</sub>OMe, and (S)-4-MeOC<sub>6</sub>H<sub>4</sub>OCH<sub>2</sub>CH(CH<sub>2</sub>Ph)NMe<sub>2</sub> gives the desired Michael addition products in high yields and lower enantioselectivities, while the use of other bases in the deprotonation leads to product in slightly increased yields and with lower enantioselectivities. The use of the nonsilylated ester gives only the product of 1,2-addition 2-Cyclopenten-1-one undergoes enantioselective addition

reactions with the lithium enolate generated from I with LDA in the presence of (R,R)-1,2-dimethoxy-1,2-diphenylethane followed by protodesilylation to give nonracemic diisopropylcarbinol (R)-2-(3-oxo-1-cyclopentyl)acetate in 47% yield and 74% ee. The use of other chiral ligands yields product in significantly reduced enantioselectivity; the use of either 2-cyclohexen-1-one or 2-cyclohepten-1-one gives Michael addition products either in low yield or not at all.

ACCESSION NUMBER: 2004:144195 CAPLUS

DOCUMENT NUMBER: 140:338953

TITLE: Chiral ligand-controlled asymmetric conjugate addition of α-trimethylsilylacetate to acyclic and cyclic enones

AUTHOR(S): Iguchi, Mayu; Doi, Hirohisa; Hata, Seiji; Tomioka, Kiyoshi

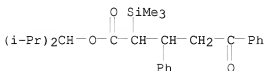
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, 606-8501, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (2004), 52(1), 125-129

CODEN: CPBTAL; ISSN: 0009-2363

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 140:338953  
 IT 679835-43-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (chemoselective and enantioselective conjugate addition of a lithium  $\alpha$ -trimethylsilylacetate ester enolate to  $\alpha,\beta$ -unsatd. acyclic enones in the presence of a nonracemic dimethoxydiphenylethane ligand)  
 RN 679835-43-9 CAPLUS  
 CN Benzenepentanoic acid,  $\delta$ -oxo- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, 2-methyl-1-(1-methylethyl)propyl ester (9CI) (CA INDEX NAME)

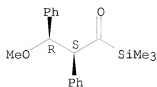


REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB The nucleophilic addition reaction to acylsilanes, having stereogenic centers at the  $\alpha$  and  $\beta$  positions, derived from the aldol reaction of di-Me acetals and acylsilane silyl enol ethers gives the corresponding  $\alpha$ -silylalcs. in high yields with excellent diastereoselectivity. The protodesilylation of  $\alpha$ -silylalcs. proceeds with complete retention of the configuration. The reduction of acylsilanes having stereogenic centers at the  $\alpha$  and  $\beta$  positions affords the corresponding  $\alpha$ -silylalcs. in good yields with high diastereoselectivity similarly to the nucleophilic addition. And the treatment of acylsilanes having a Ph group on Si atom with F<sup>-</sup> ion gave Ph carbinol derivs. via migration of the Ph group with high diastereoselectivity.

ACCESSION NUMBER: 2003:746770 CAPLUS  
 DOCUMENT NUMBER: 139:395991  
 TITLE: Diastereoselective alkylation and reduction of  $\beta$ -alkoxyacylsilanes: stereoselective construction of three contiguous stereogenic centers  
 AUTHOR(S): Honda, Mitsunori; Ohkura, Naoto; Saisy, Shin-ichi; Segi, Masahito; Nakajima, Tadashi  
 CORPORATE SOURCE: Faculty of Engineering, Department of Chemistry and Chemical Engineering, Kanazawa University, Kanazawa, 920-8667, Japan  
 SOURCE: Tetrahedron (2003), 59(41), 8203-8212  
 CODEN: TETRAB; ISSN: 0040-4020  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:395991  
 IT 482662-09-9 482662-30-6 482662-31-7  
 626235-41-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (diastereoselective nucleophilic addition of organometallic reagents to methoxyacylsilanes to give chiral alpha-silylalcs.)  
 RN 482662-09-9 CAPLUS  
 CN Silane, 1((2R,3S)-3-methoxy-1-oxo-2,3-diphenylpropyl)trimethyl-, rel- (9CI) (CA INDEX NAME)

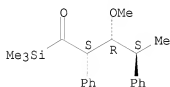
Relative stereochemistry.



RN 482662-30-6 CAPLUS

CN Silane, [(2R,3S,4R)-3-methoxy-1-oxo-2,4-diphenylpentyl]trimethyl-, rel- (9CI) (CA INDEX NAME)

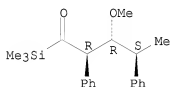
Relative stereochemistry.



RN 482662-31-7 CAPLUS

CN Silane, [(2R,3R,4S)-3-methoxy-1-oxo-2,4-diphenylpentyl]trimethyl-, rel- (9CI) (CA INDEX NAME)

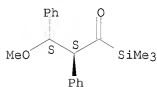
Relative stereochemistry.



RN 626235-41-4 CAPLUS

CN Silane, [(2R,3R)-3-methoxy-1-oxo-2,3-diphenylpropyl]trimethyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 626235-47-0P 626235-48-1P 626235-49-2P

626235-50-5P 626235-51-6P 626235-63-0P

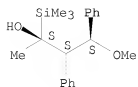
RL: SPN (Synthetic preparation); PREP (Preparation)

(diastereoselective nucleophilic addition of organometallic reagents to methoxyacylsilanes to give chiral alpha-silylals.)

RN 626235-47-0 CAPLUS

CN Benzenepropanol, gamma-methoxy-alpha-methyl-beta-phenyl-alpha-(trimethylsilyl)-, (alpha,beta,gamma)-rel- (CA INDEX NAME)

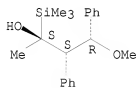
Relative stereochemistry.



RN 626235-48-1 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\alpha$ -methyl- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ S)-rel- (CA INDEX NAME)

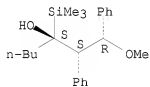
Relative stereochemistry.



RN 626235-49-2 CAPLUS

CN Benzenepropanol,  $\alpha$ -butyl- $\gamma$ -methoxy- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ S)-rel- (CA INDEX NAME)

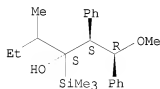
Relative stereochemistry.



RN 626235-50-5 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\alpha$ -(1-methylpropyl)- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ S)-rel- (CA INDEX NAME)

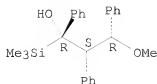
Relative stereochemistry.



RN 626235-51-6 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\alpha$ , $\beta$ -diphenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ S, $\gamma$ R)-rel- (CA INDEX NAME)

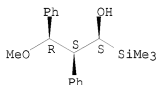
Relative stereochemistry.



RN 626235-63-0 CAPLUS

CN Benzenepropanol,  $\gamma$ -methoxy- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ S)-rel- (CA INDEX NAME)

Relative stereochemistry.



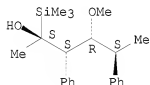
IT 626235-59-4P 626235-60-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(diastereoselective nucleophilic addition of organometallic reagents to methoxyacylsilanes to give chiral  $\alpha$ -silylals. and their protodesilylation products)

RN 626235-59-4 CAPLUS

CN Benzenebutanol,  $\gamma$ -methoxy- $\alpha$ , $\delta$ -dimethyl- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ S, $\delta$ R)-rel- (9CI)  
(CA INDEX NAME)

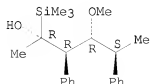
Relative stereochemistry.



RN 626235-60-7 CAPLUS

CN Benzenebutanol,  $\gamma$ -methoxy- $\alpha$ , $\delta$ -dimethyl- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ( $\alpha$ R, $\beta$ R, $\gamma$ S, $\delta$ S)-rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.

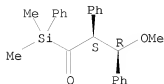


IT 626235-81-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
(protodesilylation reaction of chiral  $\alpha$ -silylals.)

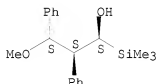
RN 626235-81-2 CAPLUS  
CN Silane, 1 (2R,3S)-3-methoxy-1-oxo-2,3-diphenylpropyl]dimethylphenyl-, rel-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 626235-64-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(reduction of acylsilanes having stereogenic centers at the alpha and beta  
positions affords the corresponding alpha-silylaics.)  
RN 626235-64-1 CAPLUS  
CN Benzenepropanol, γ-methoxy-β-phenyl-α-(trimethylsilyl)-,  
(αR,βR,γR)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Regioselective hydrosilylation of alkynylsilanes RC.tplbond.CSiMe3 (R =  
Ph, n-C4H9, n-C5H11) followed by stereoselective Michael addition to  
α,β-unsatd. ketones R1CH:CHC(O)R2 (R1 = Ph, p-NO2C6H4; R2 = Ph,  
p-CH3OC6H4, m-NO2C6H4, CH3; R1 = R2 = -(CH2)3-) in the presence of  
CuBr·Me2S produced (Z)-γ-silyl-γ,δ-unsatd.  
ketones RCH:C(SiMe3)CH(R1)CH2C(O)R2 (1). The structure of 1 (R = Ph, R1 =  
p-NO2C6H4, R2 = CH3) was established by X-ray crystallog. Epoxidn.  
followed by ring-opening hydrolysis of 1 yielded 1,4-diketones  
RCH2C(O)CH(R1)CH2C(O)R2.

ACCESSION NUMBER: 2002:947459 CAPLUS  
DOCUMENT NUMBER: 138:271727  
TITLE: Stereoselective preparation of (Z)-γ-silyl-  
γ,δ-unsaturated ketones and their  
application in the synthesis of 1,4-diketones  
AUTHOR(S): Zheng, Weixin; Huang, Xian  
CORPORATE SOURCE: Department of Chemistry, Zhejiang University,  
Hangzhou, 310028, Peop. Rep. China  
SOURCE: Synthesis (2002), (17), 2497-2502  
CODEN: SYNTBF; ISSN: 0039-7881  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:271727  
IT 503299-51-2P 503299-52-3P 503299-56-7P  
503299-61-4P 503299-62-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

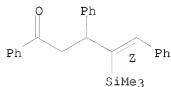
(Reactant or reagent)

(regio- and stereoselective preparation and crystal structure of unsatd. silylketones for diketone synthesis)

RN 503299-51-2 CAPLUS

CN 4-Penten-1-one, 1,3,5-triphenyl-4-(trimethylsilyl)-, (4Z)- (CA INDEX NAME)

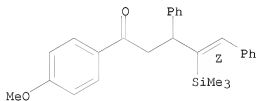
Double bond geometry as shown.



RN 503299-52-3 CAPLUS

CN 4-Penten-1-one, 1-(4-methoxyphenyl)-3,5-diphenyl-4-(trimethylsilyl)-, (4Z)- (CA INDEX NAME)

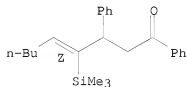
Double bond geometry as shown.



RN 503299-56-7 CAPLUS

CN 4-Nonen-1-one, 1,3-diphenyl-4-(trimethylsilyl)-, (4Z)- (CA INDEX NAME)

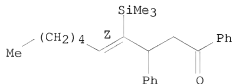
Double bond geometry as shown.



RN 503299-61-4 CAPLUS

CN 4-Decen-1-one, 1,3-diphenyl-4-(trimethylsilyl)-, (4Z)- (CA INDEX NAME)

Double bond geometry as shown.

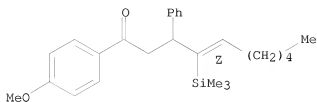


RN 503299-62-5 CAPLUS

CN 4-Decen-1-one, 1-(4-methoxyphenyl)-3-phenyl-4-(trimethylsilyl)-, (4Z)- (CA INDEX NAME)



Double bond geometry as shown.



IT 503299-53-4P 503299-57-8P 503299-58-9P

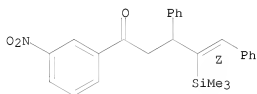
503299-63-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(regio- and stereoselective preparation and crystal structure of unsatd.  
silylketones for diketone synthesis)

RN 503299-53-4 CAPLUS

CN 4-Penten-1-one, 1-(3-nitrophenyl)-3,5-diphenyl-4-(trimethylsilyl)-, (4Z)-  
(CA INDEX NAME)

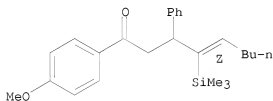
Double bond geometry as shown.



RN 503299-57-8 CAPLUS

CN 4-Nonen-1-one, 1-(4-methoxyphenyl)-3-phenyl-4-(trimethylsilyl)-, (4Z)-  
(CA INDEX NAME)

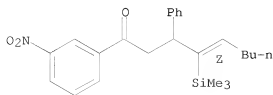
Double bond geometry as shown.



RN 503299-58-9 CAPLUS

CN 4-Nonen-1-one, 1-(3-nitrophenyl)-3-phenyl-4-(trimethylsilyl)-, (4Z)-  
(CA INDEX NAME)

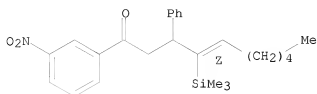
Double bond geometry as shown.



RN 503299-63-6 CAPLUS

CN 4-Decen-1-one, 1-(3-nitrophenyl)-3-phenyl-4-(trimethylsilyl)-, (4Z)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB The carbocation  $\text{Et}_3\text{SiCH}_2\text{C}^+\text{Ph}(\text{CH}:\text{CHPh})$  is stable at room temperature with tetrakis(pentafluorophenyl)borate as the anion and benzene as the solvent. The cation constitutes the 1st stable  $\beta$ -silyl carbocation in which pos. charge is delocalized both allylically and benzylically.

ACCESSION NUMBER: 2002:678808 CAPLUS

DOCUMENT NUMBER: 138:106758

TITLE: A stable  $\beta$ -silyl carbocation with allyl conjugation

AUTHOR(S): Lambert, Joseph B.; Liu, Chunqing; Kouliev, Timur  
CORPORATE SOURCE: Department of Chemistry, Northwestern University, Evanston, IL, 60208-3113, USA

SOURCE: Journal of Physical Organic Chemistry (2002), 15(9), 667-671

CODEN: JPOCEE; ISSN: 0894-3230

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:106758

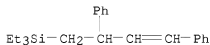
IT 485805-21-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation in the synthesis of the first stable beta-silyl carbocation with allyl conjugation)

RN 485805-21-8 CAPLUS

CN Silane, (2,4-diphenyl-3-butenyl)triethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

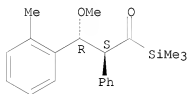
L3 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB Treatment of E- or Z-acylsilane silyl enol ethers derived from acylsilanes having an enolizable methylene proton with a mixture of aromatic aldehyde di-Me acetals and  $\text{TiCl}_4$  in  $\text{CH}_2\text{Cl}_2$  gives the corresponding 2,3-anti-3-methoxyacylsilanes in high d.e., independent of the geometry of double bond in acylsilane silyl enol ethers. E.g., aldol reaction of (E)- $\text{PhCH}:\text{C}(\text{OTMS})\text{TMS}$  (E/Z = 96/4) with  $\text{PhCH}(\text{OMe})_2$  in  $\text{CH}_2\text{Cl}_2$  at  $-78^\circ$  using  $\text{TiCl}_4$  as an activating agent afforded the corresponding 2,3-anti-3-methoxyacylsilane  $\text{PhCH}(\text{OMe})\text{CHPhCOTMS}$  (1) (anti/syn = 87/13) in 86% yield with high anti-selectivity after 1 h and likewise

(Z)-PhCH:C(OTMS)TMS (E/Z = 1/99) under the same conditions also gave I (anti/syn = 96/4) in 76% yield. However, E-acylsilane silyl enol ethers react with acetals of aliphatic aldehydes to afford the corresponding aldol adducts with syn-selectivity, while the reaction of Z-isomers provides the products with anti-selectivity. E.g., aldol reaction of PhCH:C(OTMS)TMS (E/Z = 95/5) with H<sub>3</sub>CCH(OMe)<sub>2</sub> under the same conditions as above yielded the corresponding adduct H<sub>3</sub>CCH(OMe)CH(Ph)COTMS with low syn-selectivity (49/51 = anti/syn) in 52% yield while PhCH:C(OTMS)TMS (E/Z = 15/85) with H<sub>3</sub>CCH(OMe)<sub>2</sub> yielded 64% H<sub>3</sub>CCH(OMe)CH(Ph)COTMS with high anti-selectivity (anti/syn = 89/11). A mechanism is proposed for the stereoselection observed in these Lewis acid mediated aldol reactions of silyl enol ethers with aldehydes that assumes acyclic extended transition structures.

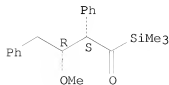
ACCESSION NUMBER: 2002:641291 CAPLUS  
 DOCUMENT NUMBER: 138:89850  
 TITLE: Diastereoselective aldol condensation of acylsilane silyl enol ethers with acetals  
 AUTHOR(S): Honda, Mitsunori; Oguchi, Wataru; Segi, Masahito; Nakajima, Tadashi  
 CORPORATE SOURCE: Faculty of Engineering, Department of Chemistry and Chemical Engineering, Kanazawa University, Kanazawa, 920-8667, Japan  
 SOURCE: Tetrahedron (2002), 58(34), 6815-6823  
 CODEN: TETRAB; ISSN: 0040-4020  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:89850  
 IT 482662-20-4P 482662-24-8P 482662-25-9P  
 482662-26-0P 482662-30-6P 482662-31-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (diastereoselective aldol condensation of acylsilane silyl enol ethers with aromatic and aliphatic acetals)  
 RN 482662-20-4 CAPLUS  
 CN Silane, [(2R,3S)-3-methoxy-3-(2-methylphenyl)-1-oxo-2-phenylpropyl]trimethyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 482662-24-8 CAPLUS  
 CN Silane, [(2R,3S)-3-methoxy-1-oxo-2,4-diphenylbutyl]trimethyl-, rel- (9CI)  
 (CA INDEX NAME)

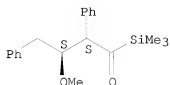
Relative stereochemistry.



RN 482662-25-9 CAPLUS

CN Silane, [(2R,3R)-3-methoxy-1-oxo-2,4-diphenylbutyl]trimethyl-, rel- (9CI)  
(CA INDEX NAME)

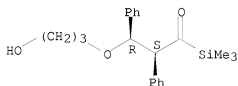
Relative stereochemistry.



RN 482662-26-0 CAPLUS

CN 1-Propanol, 3-[(1R,2S)-3-oxo-1,2-diphenyl-3-(trimethylsilyl)propoxy]-, rel- (CA INDEX NAME)

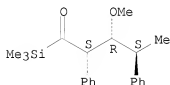
Relative stereochemistry.



RN 482662-30-6 CAPLUS

CN Silane, [(2R,3S,4R)-3-methoxy-1-oxo-2,4-diphenylpentyl]trimethyl-, rel- (9CI) (CA INDEX NAME)

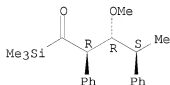
Relative stereochemistry.



RN 482662-31-7 CAPLUS

CN Silane, [(2R,3R,4S)-3-methoxy-1-oxo-2,4-diphenylpentyl]trimethyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



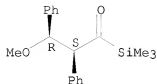
IT 482662-09-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(diastereoselective aldol condensation of acylsilane silyl enol ethers  
with aromatic and aliphatic acetals and its mechanism)

RN 482662-09-9 CAPLUS

CN Silane, [(2R,3S)-3-methoxy-1-oxo-2,3-diphenylpropyl]trimethyl-, rel- (9CI)  
(CA INDEX NAME)

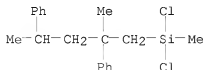
Relative stereochemistry.



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB 2-Phenylpropene was hydrosilylated using dichloromethylsilane in the presence of H<sub>2</sub>PtCl<sub>6</sub> synthesizing dichloromethyl(2-phenylpropyl)silane. The latter reacted with methanol in the presence of carbamide obtaining dimethoxymethyl(2-phenylpropyl)silane, whose reaction with methylmagnesium iodide gave methoxydimethyl(2-phenylpropyl)silane. Treatment of the latter with 40% HF gave fluorodimethyl(2-phenylpropyl)silane which reacted with BrMgC.tplbond.CH yielding dimethylethynyl(2-phenylpropyl)silane.

ACCESSION NUMBER: 2001:317259 CAPLUS  
 DOCUMENT NUMBER: 135:76929  
 TITLE: Hydrosilylation of 2-phenylpropene with dichloromethylsilane and transformations of the resulting adduct  
 AUTHOR(S): Yarosh, O. G.; Burnashova, T. D.; Yarosh, N. K.; Voronkov, M. G.  
 CORPORATE SOURCE: Irkutsk Institute of Chemistry, Siberian Division, Russian Academy of Sciences, Irkutsk, Russia  
 SOURCE: Russian Journal of General Chemistry (Translation of Zhurnal Obshchei Khimii) (2000), 70(10), 1555-1556  
 CODEN: RJGCEK; ISSN: 1070-3632  
 PUBLISHER: MAIK Nauka/Interperiodica Publishing  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 135:76929  
 IT 347194-20-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (hydrosilylation of 2-phenylpropene with dichloromethylsilane and transformations of the resulting adduct)  
 RN 347194-20-1 CAPLUS  
 CN Silane, dichloromethyl(2-methyl-2,4-diphenylpentyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Polysiloxanes have units of [-SiMe(OR<sub>1</sub>)O-]<sub>a</sub> and/or [-SiMe[(CH<sub>2</sub>)<sub>t</sub>Si(OR<sub>1</sub>)<sub>3</sub>]O-]<sub>a</sub> in combination with [-SiMe[CH<sub>2</sub>CHMeCH<sub>2</sub>(CMe<sub>2</sub>CH<sub>2</sub>)<sub>r</sub>H]O-]<sub>b</sub> or [-SiMe[(CH<sub>2</sub>)<sub>30</sub>(R<sub>2</sub>O)<sub>5</sub>R<sub>3</sub>]O-]<sub>c</sub>, wherein R<sub>1</sub> = Cl-6 alkyl, Cl-21 acyl; R<sub>2</sub> = C2-4 alkylene; R<sub>3</sub> = hydrocarbyl; a = 1-200; b = 1-200; c = 1-200; t = 2,

3; s = 1-100. Siloxane-based reactive plasticizers have both at least one plasticizing moiety selected from organic groups having an ester linkage and aliphatic and aromatic hydrocarbon groups and at least one reactive group selected from alkoxyisilyl groups and acyloxyisilyl groups, the plasticizing moiety accounting for at least 50% of the plasticizer. A rubber composition comprised natural rubber 100, carbon black 50, alkenyl-terminated polyisobutylene-modified polysiloxane 20, ZnO 3, stearic acid 1, antioxidant 1, oil-treated S powder 1.7, and accelerator CZ 1.0 part.

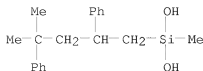
ACCESSION NUMBER: 1998:485111 CAPLUS  
DOCUMENT NUMBER: 129:123690  
TITLE: Modified polysiloxanes, rubber compositions and tire tread rubber compositions containing the same with good wear and ice and wet skid resistance, and reactive plasticizers  
INVENTOR(S): Ishikawa, Kazunori; Yatsuyanagi, Fumito  
PATENT ASSIGNEE(S): The Yokohama Rubber Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 52 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9829473	A1	19980709	WO 1997-JP4899	19971226
W: US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11080551	A	19990326	JP 1997-272826	19971006
JP 11106512	A	19990420	JP 1997-357767	19971225
EP 890598	A1	19990113	EP 1997-949259	19971226
R: DE, FR, IT				
US 6140450	A	20001031	US 1998-125818	19980826
PRIORITY APPLN. INFO.:				
			JP 1996-349658	A 19961227
			JP 1997-92316	A 19970410
			JP 1997-194313	A 19970718
			JP 1997-213359	A 19970807
			JP 1997-272826	A 19971006
			WO 1997-JP4899	W 19971226
IT 210175-32-9D,	trimethylsilyl-terminated			
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)	(modified polysiloxanes, rubber compns. and tire tread rubber compns. containing the same with good wear and ice and wet skid resistance, and reactive plasticizers)			
RN 210175-32-9	CAPLUS			
CN	Silanediol, methyl(4-methyl-2,4-diphenylpentyl)-, polymer with methyl[2-(trimethoxysilyl)ethyl]silanediol (9CI) (CA INDEX NAME)			

CM 1

CRN 210175-31-8

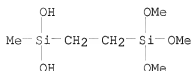
CMF C19 H26 O2 Si



CM 2

CRN 161174-84-1

CMF C6 H18 O5 Si2



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB The reaction of the substituted vinylsilanes (Me3Si)2C:CH2, (Z)-Me3SiCH:CHPh, Me3SiPhC:CH2, Me3Si(Me3C)C:CH2, (Me3Si)2C:CHPh, (Me3Si)2C:CHCMe3, (Me3Si)2C:CHCMePh2, and (Me3Si)2C:CHCMe2Ph with Li was studied. Depending on the substituents on the vinylsilane and the solvent employed, several new reaction pathways are observed, which were proved by independent syntheses of the reactive intermediates (E)-Me3SiCLi:CHPh, (Me3Si)2C:CHLi, Me3SiLi2CCHLiPh, 2-LiC6H4CHLiCHLiSiMe3, and (E)-2-LiC6H4CH:CLiSiMe3. Thus, besides the known elimination of LiH, either a 1,4-H shift of Me3SiLi2CCHLiPh to 2-LiC6H4CHLiCHLiSiMe3 or a Grovenstein-Zimmerman rearrangement of (Me3Si)2LiCCHLiCMePh2 to (Me3Si)2LiCCHPhCLiMePh can occur as follow-up reactions. Also, 2 different types of dimerization of the silyl-substituted vinylolithium compds. were identified. Either (Me3Si)2C:CHLi adds to the starting vinylsilane leading to (Me3Si)2C:CHCH2CLi(SiMe3)2, or Li metal-catalyzed dimerization to (Me3Si)2LiCCH:CHCLi(SiMe3)2 takes place, which is without precedence.

ACCESSION NUMBER: 1998:455569 CAPLUS

DOCUMENT NUMBER: 129:202974

TITLE: Polylithiumorganic compounds. Part 24. The reaction of substituted vinylsilanes with lithium metal

AUTHOR(S): Maercker, Adalbert; Reider, Kerstin; Girreser, Ulrich  
CORPORATE SOURCE: Institut Organische Chemie, Universitaet-GH Siegen, Siegen, D-57068, Germany

SOURCE: European Journal of Organic Chemistry (1998), (7), 1455-1465

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:202974

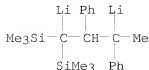
IT 211987-05-2P 211987-15-4P 211987-16-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of polylithiumorg. compds. by reaction of vinylsilanes with lithium metal)

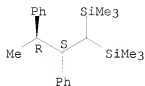
RN 211987-05-2 CAPLUS

CN Lithium, [ $\mu$ -[1-methyl-1,2-diphenyl-3,3-bis(trimethylsilyl)-1,3-propanediyl]]di- (9CI) (CA INDEX NAME)



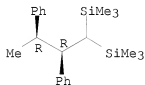
RN 211987-15-4 CAPLUS  
 CN Silane, [(2S,3R)-2,3-diphenylbutylidene]bis[trimethyl- (9CI) (CA INDEX NAME)]

Relative stereochemistry.

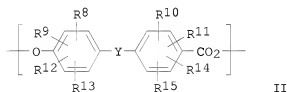
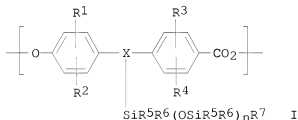


RN 211987-16-5 CAPLUS  
 CN Silane, [(2R,3R)-2,3-diphenylbutylidene]bis[trimethyl- (9CI) (CA INDEX NAME)]

Relative stereochemistry.



L3 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 GI



AB The photoreceptor has a photosensitive layer whose surface contains a polycarbonate-based polymer having a repeating units I [R1-4 = halo, alkyl, aryl; R5-7 = alkyl, aryl; X = alkylene (ester), alkylencarbonyl; n = 0-1000] and II (R8-15 = halo, alkoxy, alkyl, alkenyl, aryl; Y = CR16R17, S, SO2, (CH2)a, O, (CH2)a(SiR16R17O)bSiR16R17(CH2)a; R16, R17 = H, halo, alkyl, aryl; R16 and R17 may form a heterocyclic or ring) on an elec. conductive support. The cartridge and the apparatus having the photoreceptor



are also claimed. The photoreceptor shows good mech. strength and improved solvent crack resistance.

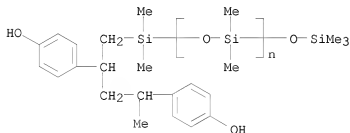
ACCESSION NUMBER: 1997:526323 CAPLUS  
DOCUMENT NUMBER: 127:240966  
TITLE: Electrophotographic photoreceptor, process cartridge having it, and electrophotographic apparatus  
INVENTOR(S): Anayama, Hideki; Hirano, Hidetoshi  
PATENT ASSIGNEE(S): Canon K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09204058	A	19970805	JP 1996-11453	19960126
PRIORITY APPLN. INFO.:			JP 1996-11453	19960126

IT 195252-92-7P 195252-96-1P 195252-98-3P  
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(electrophotog. photoreceptor containing polycarbonate-containing photosensitive layer with solvent crack resistance)  
RN 195252-92-7 CAPLUS  
CN Carbonic dichloride, polymer with  $\alpha$ -[[2,4-bis(4-hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

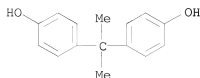
CM 1

CRN 170441-84-6  
CMF (C2 H6 O Si)<sub>n</sub> C22 H34 O3 Si2  
CCI PMS



CM 2

CRN 80-05-7  
CMF C15 H16 O2



CM 3

CRN 75-44-5

CMF C Cl2 O



RN 195252-96-1 CAPLUS

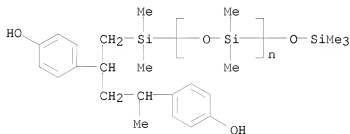
CN Carbonic dichloride, polymer with  $\alpha$ -[2,4-bis(4-hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 4,4'-cyclohexylidenebis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 170441-84-6

CMF (C2 H6 O Si)<sub>n</sub> C22 H34 O3 Si2

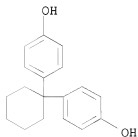
CCI PMS



CM 2

CRN 843-55-0

CMF C18 H20 O2



CM 3

CRN 75-44-5

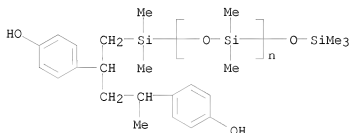
CMF C Cl2 O



RN 195252-98-3 CAPLUS  
 CN Carbonic dichloride, polymer with  $\alpha$ -[[2,4-bis(4-hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 4,4'-(1-methylethylidene)bis[2-methylphenol] (9CI)  
 (CA INDEX NAME)

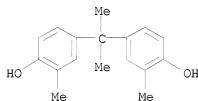
CM 1

CRN 170441-84-6  
 CMF (C2 H6 O Si)<sub>n</sub> C22 H34 O3 Si2  
 CCI PMS



CM 2

CRN 79-97-0  
 CMF C17 H20 O2



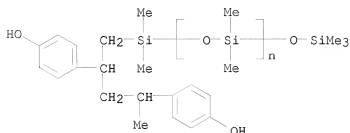
CM 3

CRN 75-44-5  
 CMF C C12 O



IT 170441-84-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer; electrophotog. photoreceptor containing polycarbonate-containing photosensitive layer with solvent crack resistance)

RN 170441-84-6 CAPLUS  
 CN Poly[oxy(dimethylsilylene)],  $\alpha$ -[[2,4-bis(4-hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -[(trimethylsilyl)oxy]- (9CI)  
 (CA INDEX NAME)



L3 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB The title compns., which are useful for adhesion of acrylic or ABS resins, contain (A) 100 parts siloxanes bearing (R1)aSiO(4-a)/2 [R1 = Cl-10 (halo)hydrocarbyl;  $1.8 \leq a < 2.3$ ] units and  $\geq 2$  aliphatic unsatd. groups, and having viscosity 10-10,000,000 cP at 25°; (B) 0-30 parts H siloxanes bearing (R2)bHcSiO(4-b-c)/2 [R2 = Cl-10 (halo)hydrocarbyl;  $1.6 < b < 2.2$ ;  $0.002 \leq c \leq 1$ ;  $1.8 < b + c \leq 3.0$ ] units and  $\geq 2$  Si-H groups; (C) 0.1-30 parts organosilicons containing  $\geq 2$  olefinic monomer units and  $\geq 1$  Si-H group (total Si-H of B and C is 0.4-10 mol/mol-total aliphatic unsatd. group) and having softening point or m.p.  $\leq 120^\circ$ ; and (D) 1-2000 ppm Pt-group metal compds. Thus, 500 mL 0.5 mol/L  $\alpha$ -methylstyrene in THF was reacted with 20 g allyl chloride in the presence of a Na mirror at room temperature to  $40^\circ$  for 6 h and treated with 250 g 1,3,5,7-tetramethylcyclotetrasiloxane at  $100^\circ$  for 2 h to prepare an organosilicon compound A composition containing dimethylvinylsilyl-terminated di-Me siloxane 120, aerosol SiO<sub>2</sub> 40, hexamethyldisilazane 8, H<sub>2</sub>O 1, Me<sub>3</sub>Si-terminated Me H siloxane 3, vinyl Me polysiloxane 4, and 3-methyl-3-hydroxy-1-butyne 0.1 part was mixed with 50 ppm Pt-vinyl siloxane complex and 0.5% of the above organosilicon compound and cured to prepare a test piece showing good adhesion with polycarbonates, ABS resin, acrylic resins, and polystyrene.

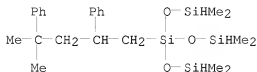
ACCESSION NUMBER: 1997:69666 CAPLUS  
 DOCUMENT NUMBER: 126:90426  
 TITLE: Addition-curable silicone rubber adhesive compositions  
 INVENTOR(S): Fujiki, Hironao  
 PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08291254	A	19961105	JP 1995-96593	19950421
JP 3174713	B2	20010611		

PRIORITY APPLN. INFO.: JP 1995-96593 19950421  
 IT 185517-16-2P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (adhesion promoters; addition-curable silicone rubber adhesive compns.)

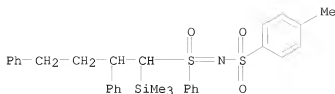
RN 185517-16-2 CAPLUS  
 CN Trisiloxane, 3-[(dimethylsilyl)oxy]-1,1,5,5-tetramethyl-3-(4-methyl-2,4-diphenylpentyl)- (CA INDEX NAME)



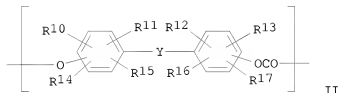
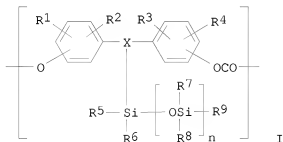
L3 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Treatment of N-(toluene-p-sulfonyl)vinylsulfoximines TolSO2N:S(O)PhCH:CHR [R = Ph, Me, CHMe2, cyclohexyl, Ph(CH2)2, Bu, Tol = 4-MeC6H4] with methylolithium at -78°, followed by addition of chlorotrimethylsilane, results in the efficient formation of α-silyl vinylsulfoximines TolSO2N:S(O)PhC(SiMe3):CHR (I) in good to excellent yield. Nucleophilic addition of a range of simple alkyl and aryl organometallics (lithium, copper-lithium and Grignard reagents) occurs in variable yield to give the Michael adducts TolSO2N:S(O)PhCH(SiMe3)CHRR1 (R1 = Bu, Me, Ph), with organolithium reagents being most effective. The degree of stereoselectivity of each of the addition reactions was determined by 1H NMR of the desilylated products TolSO2N:S(O)PhCH2CHRR1 (II), and proved to be synthetically useful for compds. in which the starting α-silylvinylsulfoximines were branched at the γ-position, and also when phenyllithium was used as the nucleophile. The sense of stereoselectivity was determined in two cases by X-ray crystal structure anal. of II (R = CHMe2, R1 = Me; R = cyclohexyl, R1 = Ph). A one-pot process for the conversion of α-silylvinylsulfoximines I (R = CHMe2, cyclohexyl) to α-substituted carboxylic acids (2R)-HO2CCHRR' (R' = Me, Bu) was developed, using an in situ phenylselenation-oxidation process following the initial conjugate addition. Use of enantiomerically pure starting materials allowed the assignment configuration of two carboxylic acids by comparison with literature data, and hence indirectly of the relative stereochem. of the initial Michael adducts II (R = CHMe2, R1 = Me; R = cyclohexyl, R1 = Me).

ACCESSION NUMBER: 1996:454512 CAPLUS  
 DOCUMENT NUMBER: 125:221280  
 TITLE: Stereoselective addition of organometallic reagents of N-(tosyl)vinylsulfoximines  
 AUTHOR(S): Jackson, Richard F. W.; Briggs, Andrew D.; Brown, Paul A.; Clegg, William; Elsegood, Mark R. J.; Frampton, Christopher  
 CORPORATE SOURCE: Dep. Chem., Univ. Newcastle, Newcastle upon Tyne, NE1 7RU, UK  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1996), (14), 1673-1682  
 CODEN: JCPRB4; ISSN: 0300-922X  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

IT 181268-71-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (stereoselective addition of organometallic compds. to N-(tosyl)vinylsulfoximines)  
 RN 181268-71-3 CAPLUS  
 CN Trifloxime, S-[2,4-diphenyl-1-(trimethylsilyl)butyl]-N-[(4-methylphenyl)sulfonyl]-S-phenyl- (9CI) (CA INDEX NAME)



L3 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



AB The polycarbonates with intrinsic viscosity ( $\eta$ )  $\leq 2.0$  dL/g comprise (A) 0.01-50% siloxane group-containing bisphenyl repeating units I and (B) bisphenyl repeating units II [R1-4 = H, halo, (substituted) alkyl, aryl; R5-9 = alkyl, aryl; X = alkylene, alkylene ester, alkylenecarbonyl; n = 0-1000; R10-17 = H, halo, alkoxy, (substituted) alkyl, alkenyl, (substituted) aryl; Y = CR18CR19, S, SO2, (CH2)a, O, (CH2)a(SiR18R19)bSiR18R19(CH2)a; R18, R19 = H, halo, (substituted) alkyl, aryl; R18 and R19 may form a carbocycle or heterocycle; a, b  $\geq 0$ ]. Thus, 26.8 g 4-methyl-2,4-bis(hydroxyphenyl)-1-pentene and 274 g MeSiH(OSiMe2)36Me were heated at 110° for 3 h in the presence of chloroplatinic acid to give a siloxane-containing bisphenol, 10.2 g of which was treated with 2,2-bis(4-hydroxyphenyl)propane 91.2, p-tert-butylphenol 1.44, and COCl2 51 g at 15° for 2 h with emulsification to give a polymer with  $\eta$  0.65 dL/g (0.5 g/dL in CH2Cl2 at 20°). The polymer was press-molded to obtain a test piece showing total light transmittance 90.3% and good abrasion resistance.

ACCESSION NUMBER: 1995:795576 CAPLUS

DOCUMENT NUMBER: 123:314941

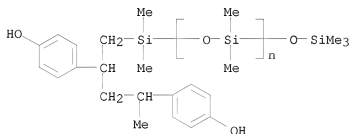
TITLE: Polycarbonates containing polysiloxane structures and their manufacture

INVENTOR(S): Ogawa, Noryoshi; Tajima, Jun

PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

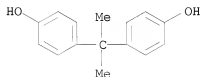
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 07165897	A	19950627	JP 1993-311833	19931213
	JP 3371922	B2	20030127		
PRIORITY APPLN. INFO.:				JP 1993-311833	19931213
IT	170441-85-7P 170441-88-0P 170441-89-1P				
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(polycarbonates containing siloxane structures with good transparency and abrasion resistance)				
RN	170441-85-7	CAPLUS			
CN	Carbonic dichloride, polymer with $\alpha$ -[[2,4-bis(4-hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 4,4'-(1-methylethylidene)bis[phenol], graft (9CI)				
	(CA INDEX NAME)				
CM	1				
CRN	170441-84-6				
CMF	(C2 H6 O Si) <sub>n</sub> C22 H34 O3 Si2				
CCI	PMS				



CM 2

CRN 80-05-7

CMF C15 H16 O2



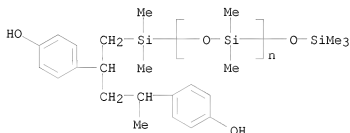
CM	3
CRN	75-44-5
CMF	C C12 O



RN 170441-88-0 CAPLUS  
 CN Carbonic dichloride, polymer with  $\alpha$ -[2,4-bis(4-hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 4,4'-cyclohexylidenebis[phenol], graft (9CI) (CA INDEX NAME)

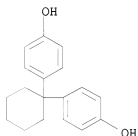
CM 1

CRN 170441-84-6  
 CMF (C2 H6 O Si)<sub>n</sub> C22 H34 O3 Si2  
 CCI PMS



CM 2

CRN 843-55-0  
 CMF C18 H20 O2



CM 3

CRN 75-44-5  
 CMF C C12 O



RN 170441-89-1 CAPLUS  
 CN Carbonic dichloride, polymer with  $\alpha$ -[2,4-bis(4-



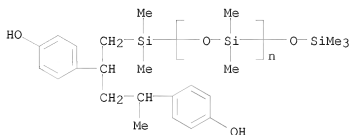
hydroxyphenyl)pentyl]dimethylsilyl]- $\omega$ -(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 4,4'-(1-methylethylidene)bis[2-methylphenol], graft (9CI) (CA INDEX NAME)

CM 1

CRN 170441-84-6

CMF (C2 H6 O Si)<sub>n</sub> C22 H34 O3 Si2

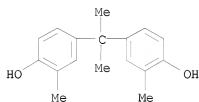
CCI PMS



CM 2

CRN 79-97-0

CMF C17 H20 O2

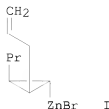


CM 3

CRN 75-44-5

CMF C Cl2 O





AB 1,1- Or n,n-bismetallc reagents bearing a methoxymethyl ether in the  $\gamma$  position undergo cyclization at room temperature to give monometalated, diastereoselectively substituted cyclopropanes, e.g., I. The nature of the substituents is crucial for this diastereoselection, a  $\pi$ -chelation between one metal and a properly located unsatn., as well as 1,2-strain, probably explain the steric outcome of these reactions.

ACCESSION NUMBER: 1995:495382 CAPLUS

DOCUMENT NUMBER: 123:82859

TITLE: Stereodefined Substituted Cyclopropyl Zinc Reagents from Gem-Bismetallics

AUTHOR(S): Beruben, Dov; Marek, Ilane; Normant, Jean F.; Platzer, Nicole

CORPORATE SOURCE: Laboratoire de Chimie des Organoelements, Universite P. et M. Curie, Paris, 75252, Fr.

SOURCE: Journal of Organic Chemistry (1995), 60(8), 2488-501

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:82859

IT 165268-84-8P 165268-85-9P

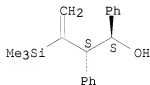
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of chiral cyclopropanes via cyclization of bismetallc reagents bearing a methoxymethyl ether in the  $\gamma$  position)

RN 165268-84-8 CAPLUS

CN Benzeneethanol,  $\alpha$ -phenyl- $\beta$ -[1-(trimethylsilyl)ethenyl]-, (R\*,R\*)- (9CI) (CA INDEX NAME)

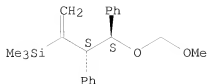
Relative stereochemistry.



RN 165268-85-9 CAPLUS

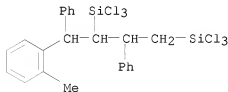
CN Silane, [3-(methoxymethoxy)-1-methylene-2,3-diphenylpropyl]trimethyl-, (R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

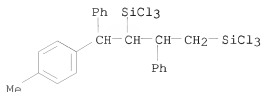


L3 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB The replacement of the usual electron donating alkyl groups on silicon, with electroneg. chloride ligands, changes the mechanism and outcome of the reaction of (E)- $\beta$ -(dichlorobenzylsilyl)styrene with proton and carbon electrophiles. Electrophilic addition rather than the usual substitution occurs, so that the silicon remains intact to mediate further chemical reactions. The exptl. results show that Friedel-Crafts reactions of the silylated alkene are subject to the same limitations observed for non-silylated alkenes; the extent of polymerization increases as the stability

of the carbenium ion decreases.  
 ACCESSION NUMBER: 1994:509734 CAPLUS  
 DOCUMENT NUMBER: 121:109734  
 ORIGINAL REFERENCE NO.: 121:19853a,19856a  
 TITLE: Electrophilic addition to styrylsilanes: sequential carbon-carbon bond forming reactions  
 AUTHOR(S): Henry, Courtney; Jueschke, Ralf; Brook, Michael A.  
 CORPORATE SOURCE: Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.  
 SOURCE: Inorganica Chimica Acta (1994), 220(1-2), 145-54  
 CODEN: ICHAA3; ISSN: 0020-1693  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 156970-68-2P 156970-69-3P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and NMR spectra of)  
 RN 156970-68-2 CAPLUS  
 CN Silane, [1-[(2-methylphenyl)phenylmethyl]-2-phenyl-1,3-propanediyl]bis[trichloro- (9CI) (CA INDEX NAME)]

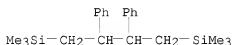


RN 156970-69-3 CAPLUS  
 CN Silane, [1-[(4-methylphenyl)phenylmethyl]-2-phenyl-1,3-propanediyl]bis[trichloro- (9CI) (CA INDEX NAME)]



L3 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB R4(PrO)4( $\mu$ -PrO)2W2 (3; R = Me, Et, Pr, Bu, sec-Bu, iso-Bu, hexyl, Me3SiCH2, Ph) prepared in situ by reaction of organolithium or Grignard compds. with (PrO)4( $\mu$ -PrO)2W2Cl4 (2), react with aromatic aldehydes or ketones and with the  $\alpha,\beta$ -unsatd. ketone benzylideneacetone in a novel reaction, called the ARCD (additive, reductive carbonyl dimerization) reaction, to give RR'R"CCR'R" (4; same R; R' = e.g., H, Me, Ph; R" = e.g., Ph) in mostly good yields. In the case of benzylideneacetone and furfural, rearranged products are formed in addition to the ARCD products. With Ph4(PrO)4( $\mu$ -PrO)2W2 (3b), ARCD reactions are also possible in moderate yields with aliphatic aldehydes and ketones. The more closely investigated reagent Me4(PrO)4( $\mu$ -PrO)2W2 (3a; decomposition at about -45°) tolerates the aromatic bound functional groups Cl, F, OH, OMe, and NMe2 in the substrates, but not NO2 and CO2Et substituents. It reacts with PhCOX (X = OEt, Cl, COCPh) via acetophenone to give PhCMe2CMe2Ph. A radical mechanism is postulated for the ARCD reactions.

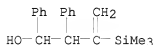
ACCESSION NUMBER: 1994:322299 CAPLUS  
 DOCUMENT NUMBER: 120:322299  
 ORIGINAL REFERENCE NO.: 120:56689a, 56692a  
 TITLE: Organomolybdenum and organotungsten reagents. V. On the additive, reductive carbonyl dimerization (ARCD reaction)  
 AUTHOR(S): Kauffmann, Thomas; Jordan, Jan; Voss, Karl Uwe; Wilde, Heinz Wilhelm  
 CORPORATE SOURCE: Org. Chem. Inst., Univ. Muenster, Muenster, D-48149, Germany  
 SOURCE: Chemische Berichte (1993), 126(9), 2083-91  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 OTHER SOURCE(S): CASREACT 120:322299  
 IT 41115-16-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 41115-16-6 CAPLUS  
 CN Silane, (2,3-diphenyl-1,4-butanediyl)bis[trimethyl- (9CI) (CA INDEX NAME)



L3 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB A wide range of unsatd. aryl-, alkenyl-, and alkynylcopper compds. can be selectively homologated by a methylene unit using (iodomethyl)zinc iodide or bis(iodomethyl)zinc. These reactions allow the generation of mixed allylic zinc-copper compds. which can be efficiently trapped with carbonyl compds. An application to a general preparation of functionalized  $\alpha$ -methylene- $\gamma$ -butyrolactones is described. The homologation of alkynylcoppers with (iodomethyl)zinc iodide allows a one-pot preparation of propargylic copper reagents which in the presence of a carbonyl compound provide various homopropargylic alcs. in excellent yields. In the absence of an electrophile, a clean quadruple methylene homologation of alkynylcopper occurs to furnish dienic copper reagents. The homologation of other types of copper reagents is also possible, and carbanions at the  $\alpha$ -position to amines as well as homoenolates of aldehydes or ketones can also be prepared by this method.

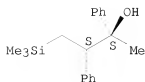
ACCESSION NUMBER: 1993:448724 CAPLUS  
 DOCUMENT NUMBER: 119:48724

ORIGINAL REFERENCE NO.: 119:8819a,8820a  
 TITLE: Selective mono- and polymethylene homologations of copper reagents using (iodomethyl)zinc iodide  
 AUTHOR(S): Sidduri, AchyuthaRao; Rozema, Michael J.; Knochel, Paul  
 CORPORATE SOURCE: Dep. Chem., Univ. Michigan, Ann Arbor, MI, 48109-1055, USA  
 SOURCE: Journal of Organic Chemistry (1993), 58(10), 2694-713  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 119:48724  
 IT 148531-01-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 148531-01-5 CAPLUS  
 CN Benzeneethanol,  $\alpha$ -phenyl- $\beta$ -[1-(trimethylsilyl)ethenyl]- (CA INDEX NAME)



L3 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB  $\gamma$ -Silyl tertiary alcs. e.g.,  $\text{Me}_3\text{SiCH}_2\text{CH}_2\text{CMe}_2\text{OH}$  rearrange in protic acid  $\text{BF}_3 \cdot 2\text{AcOH}$  with 1,2-shift of hydride, Ph, or alkyl groups, and loss of the silyl group to give alkenes e.g.,  $\text{H}_2\text{C}=\text{CHCHMe}_2$ . The placing of the silyl group thus controls the carbonium ion rearrangement in a preparatively useful way. Methoxycarbonyl groups do not migrate; instead, cyclopropanes are formed, except when the conformation suitable for cyclopropane formation is unattainable. When the alkene product is 2,2-disubstituted, it can be reprotonated under the reaction conditions and does not therefore always survive. This can be avoided by carrying out the reaction using a Lewis acid on the silyl ether. The starting  $\gamma$ -silyl alcs. are prepared by a variety of versatile methods.  
 ACCESSION NUMBER: 1989:594181 CAPLUS  
 DOCUMENT NUMBER: 111:194181  
 ORIGINAL REFERENCE NO.: 111:32267a,32270a  
 TITLE: Carbonium ion rearrangements controlled by the presence of a silyl group  
 AUTHOR(S): Fleming, Ian; Patel, Shailesh K.; Urch, Christopher J.  
 CORPORATE SOURCE: Univ. Chem. Lab., Cambridge, CB2 1EW, UK  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1989), (1), 115-24  
 CODEN: JCPRB4; ISSN: 0300-922X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 111:194181  
 IT 123315-07-1P 123315-38-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and boron trifluoride acetic acid complex mediated rearrangement of, alkene by)  
 RN 123315-07-1 CAPLUS  
 CN Benzeneethanol,  $\alpha$ -methyl- $\alpha$ -phenyl- $\beta$ -[(trimethylsilyl)methyl]-, (R\*,R\*)- (9CI) (CA INDEX NAME)

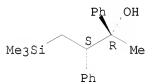
Relative stereochemistry.



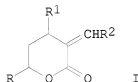
RN 123315-38-8 CAPLUS

CN Benzeneethanol,  $\alpha$ -methyl- $\alpha$ -phenyl- $\beta$ -  
[(trimethylsilyl)methyl]-, (R\*,S\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



AB Michael addition of  $\text{Me}_3\text{SiCH}_2\text{C}(\text{OEt})\text{OSiMe}_3$  to  $\alpha,\beta$ -unsatd. ketones, e.g.,  $\text{RCOCH:CHR}_1$  ( $\text{R} = \text{Me, Et, Ph}$ ;  $\text{R}_1 = \text{H, Ph}$ ), in the presence of  $\text{TiCl}_4$  and  $\text{Ti}(\text{OCHMe}_2)_4$  gave 51-98% keto esters, e.g.,  $\text{RCOCH}_2\text{CHR}_1\text{CH}(\text{SiMe}_3)\text{CO}_2\text{Et}$  (same  $\text{R, R}_1$ ). Selective reduction of the keto esters with  $\text{NaBH}_4$  gave 76-98% hydroxy esters, e.g.,  $\text{HOCHRCH}_2\text{CHR}_1\text{CH}(\text{SiMe}_3)\text{CO}_2\text{Et}$ . Deprotonation and addition of excess  $\text{R}_2\text{CHO}$  ( $\text{R}_2 = \text{Ph, H}$ ) gave, after alkylation, Peterson-type olefination, and lactonization, 40-89%  $\alpha$ -ylidene  $\delta$ -lactones, e.g., I.

ACCESSION NUMBER: 1987:598007 CAPLUS

DOCUMENT NUMBER: 107:198007

ORIGINAL REFERENCE NO.: 107:31759a,31762a

TITLE: Michael-type addition of O-ethyl-C,O-bis(trimethylsilyl)ketene acetal and its application to the synthesis of  $\alpha$ -ylidene  $\delta$ -lactones  
Matsuda, Isamu

AUTHOR(S): Fac. Eng., Nagoya Univ., Nagoya, 464, Japan

SOURCE: Journal of Organometallic Chemistry (1987), 321(3), 307-16

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 107:198007

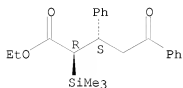
IT 111022-93-6P 111022-94-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reduction of, with sodium borohydride)

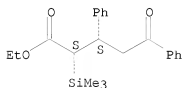
RN 111022-93-6 CAPLUS  
 CN Benzenepentanoic acid,  $\delta$ -oxo- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-  
 , ethyl ester, ( $R^*,S^*$ )- (9CI) (CA INDEX NAME)

Relative stereochemistry.



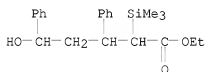
RN 111022-94-7 CAPLUS  
 CN Benzenepentanoic acid,  $\delta$ -oxo- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-  
 , ethyl ester, ( $R^*,R^*$ )- (9CI) (CA INDEX NAME)

Relative stereochemistry.

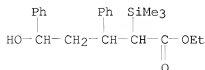


IT 111023-01-9P 111137-47-4P 111137-48-5P  
 111137-49-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation, olefination, and lactonization of)

RN 111023-01-9 CAPLUS  
 CN Benzenepentanoic acid,  $\delta$ -hydroxy- $\beta$ -phenyl- $\alpha$ -  
 (trimethylsilyl)-, ethyl ester, ( $\alpha R^*,\beta S^*,\delta S^*$ )- (9CI) (CA  
 INDEX NAME)

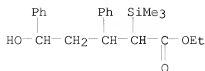


RN 111137-47-4 CAPLUS  
 CN Benzenepentanoic acid,  $\delta$ -hydroxy- $\beta$ -phenyl- $\alpha$ -  
 (trimethylsilyl)-, ethyl ester, ( $\alpha R^*,\beta S^*,\delta R^*$ )- (9CI) (CA  
 INDEX NAME)



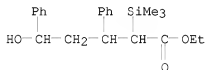
RN 111137-48-5 CAPLUS  
 CN Benzenepentanoic acid,  $\delta$ -hydroxy- $\beta$ -phenyl- $\alpha$ -  
 (trimethylsilyl)-, ethyl ester, ( $\alpha R^*,\beta R^*,\delta S^*$ )- (9CI) (CA

INDEX NAME)



RN 111137-49-6 CAPLUS

CN Benzenepentanoic acid,  $\delta$ -hydroxy- $\beta$ -phenyl- $\alpha$ -(trimethylsilyl)-, ethyl ester, ( $\alpha$ R\*, $\beta$ R\*, $\delta$ R\*)- (9CI) (CA INDEX NAME)



L3 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB RCH:CLiSnMe3 (I; R = Me, Bu, cyclohexyl, Me3C, Ph), prepared from RCH:C(SnMe3)2 and MeLi, reacted with electrophiles MeOD, Me2SO4, and Me3SiCl to give RCH:CD5nMe3, RCH:CMeSnMe3, and RCH:C(SiMe3)(SnMe3) (II), resp. Lithiation of II (same R) gave RCH:CLiSiMe3 (III), which were methylated to give RCH:CMeSiMe3. Treating III (R = Me, Bu, cyclohexyl) with MeOD led to reformation of II whereas III (R = Ph) and MeOD gave (E)-PhCH:CDSiMe3. (E)-I (R = Ph, CMe3) and (E)-II (R = Ph) reacted with R1CHO (R1 = H, Me, Et, CHMe2, Ph, PhCH:CH, MeCH:CH) and R2COPh (R2 = Ph, C6H4Me-2) with 1,2-addition to give 62-87% (E)-RCH:C(MMe3)CHR1OH or 53-91% (E)-RCH:C(MMe3)CPhR2OH (M = Si, Sn); PhCH:CHCOR3 (R3 = Ph, CMe3) and (E)-I (R = Ph, CMe3) or (E)-II (R = Ph) reacted with 1,4-addition to form 72-86% (E)-RCH:C(MMe3)CHPhCH2COR3 (M = Si, Sn).

ACCESSION NUMBER: 1985:471365 CAPLUS

DOCUMENT NUMBER: 103:71365

ORIGINAL REFERENCE NO.: 103:11493a,11496a

TITLE: Formation of  $\alpha$ -silylvinylolithium reagents: reactions of  $\alpha$ -silyl- and  $\alpha$ -stannylvinylolithiums with aldehydes and ketones

AUTHOR(S): Mitchell, Terence N.; Reimann, Werner

CORPORATE SOURCE: Abt. Chem., Univ. Dortmund, Dortmund, 4600/50, Fed. Rep. Ger.

SOURCE: Journal of Organometallic Chemistry (1985), 281(2-3), 163-71

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 103:71365

IT 97558-18-4P

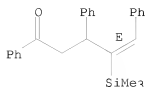
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 97558-18-4 CAPLUS

CN 4-Penten-1-one, 1,3,5-triphenyl-4-(trimethylsilyl)-, (E)- (9CI) (CA INDEX NAME)

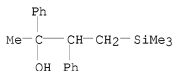
Double bond geometry as shown.





L3 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Alkyl and aryl tertiary alcs. with a  $\gamma$ -silyl group generally undergo a carbonium ion rearrangement in acid to give an alkene with the loss of the silyl group. E.g.,  $\text{Me}_3\text{Si}(\text{CH}_2)_2\text{C}(\text{OH})\text{Me}_2$  in  $\text{BF}_3/\text{AcOH}/\text{CH}_2\text{Cl}_2$  at  $0^\circ$  for 15 min gave  $\text{CH}_2=\text{CHCHMe}_2$  quant. The scope of this reaction was investigated and it was shown that hydride and Ph shifts are facile; that hydride migrates faster than an alkyl group when it is Me, or when the migration terminus has 2 aryl groups; and that larger alkyl groups migrate faster than hydride, except where there are ring residues.

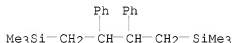
ACCESSION NUMBER: 1981:549839 CAPLUS  
 DOCUMENT NUMBER: 95:149839  
 ORIGINAL REFERENCE NO.: 95:25067a,25070a  
 TITLE: Carbonium ion rearrangements controlled by the presence of a silyl group  
 AUTHOR(S): Fleming, Ian; Patel, Shailesh K.  
 CORPORATE SOURCE: Chem. Lab., Univ. Cambridge, Cambridge, CB2 1EW, UK  
 SOURCE: Tetrahedron Letters (1981), 22(24), 2321-4  
 CODEN: TELEAY; ISSN: 0040-4039  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 95:149839  
 IT 79238-95-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (elimination/rearrangement reactions of, acid-catalyzed)  
 RN 79238-95-2 CAPLUS  
 CN Benzeneethanol,  $\alpha$ -methyl- $\alpha$ -phenyl- $\beta$ -  
 [(trimethylsilyl)methyl]- (CA INDEX NAME)



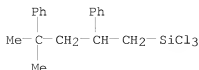
L3 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB  $\text{Me}_3\text{Si}$  radicals formed by the photodecompn. of  $(\text{Me}_3\text{Si})_2\text{Hg}$  (I) [4656-04-6] were responsible for the radical photopolymn. of styrene (II) [100-42-5] in presence of I. The polymerization rate was expressed by the equation  $R_p = K[I]^{1/2}[II]$ . IR and NMR of the polymer showed that  $\text{Me}_3\text{Si}$  groups were incorporated. Reaction of equimolar amts. of I and II in benzene under UV irradiation gave 22% of the radical coupling product 2,2,7,7-tetramethyl-4,5-diphenyl-2,7-disilaoctane [41115-16-6]. N-trimethylsiloxy-2,4,6-tri-tert-butylanilino radical [62489-01-4] was obtained by a spin trapping technique using 2,4,6-tri-tert-butylnitrosobenzene as the trapping agent.

ACCESSION NUMBER: 1977:156039 CAPLUS  
 DOCUMENT NUMBER: 86:156039  
 ORIGINAL REFERENCE NO.: 86:24523a,24526a  
 TITLE: Radical polymerization by silyl radicals.  
 Photopolymerization of styrene by

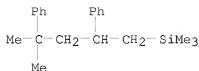
bis(trimethylsilyl)mercury  
 AUTHOR(S): Ikeda, Hisayoshi; Miura, Yoza; Kinoshita, Masayoshi  
 CORPORATE SOURCE: Fac. Eng., Osaka City Univ., Osaka, Japan  
 SOURCE: Makromolekulare Chemie (1976), 177(9), 2647-55  
 CODEN: MACEAK; ISSN: 0025-116X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 41115-16-6  
 RL: USES (Uses)  
 (coupling product, of radical reaction of styrene with  
 bis(trimethylsilyl)mercury)  
 RN 41115-16-6 CAPLUS  
 CN Silane, (2,3-diphenyl-1,4-butanediyl)bis[trimethyl- (9CI) (CA INDEX NAME)



L3 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Several Pt(II) complexes containing chiral phosphines, (R)-benzylmethylphenylphosphine (BMPP), (R)-methylphenylpropylphosphine (MPPP), and methylphenylphosphine were prepared Catalytic asymmetric hydrosilylation was achieved for the 1st time in the reaction of MeCl<sub>2</sub>SiH with 1,1-disubstituted prochiral olefins, α-methylstyrene, 2,3-dimethyl-1-butene, and 2-methyl-1-butene, using a Pt catalyst precursor [LPtCl<sub>2</sub>]<sub>2</sub> (L = BMPP, MPPP), and partly optically active adducts RMeCHCH<sub>2</sub>SiMeCl<sub>2</sub> (R = Ph, Me<sub>2</sub>CH) were obtained. With Cl<sub>3</sub>SiH, the asymmetric addition reaction was always accompanied by isomerization or dimerization of the olefins. The chiral Pt complex-catalyzed addition-cyclization of 4-pentenyl dimethylsilane also gave rise to an optically active 2-methyl-1-silacyclopentane derivative  
 ACCESSION NUMBER: 1977:5526 CAPLUS  
 DOCUMENT NUMBER: 86:5526  
 ORIGINAL REFERENCE NO.: 86:959a,962a  
 TITLE: Catalytic asymmetric hydrosilylation of olefins. I. Chiral phosphine-platinum(II) complexes as hydrosilylation catalysts  
 AUTHOR(S): Yamamoto, Keiji; Hayashi, Tamio; Zembayashi, Michio; Kumada, Makoto  
 CORPORATE SOURCE: Dep. Synth. Chem., Kyoto Univ., Kyoto, Japan  
 SOURCE: Journal of Organometallic Chemistry (1976), 118(2), 161-81  
 CODEN: JORCAI; ISSN: 0022-328X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 61283-78-1P 61283-79-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 61283-78-1 CAPLUS  
 CN Silane, trichloro(4-methyl-2,4-diphenylpentyl)- (9CI) (CA INDEX NAME)

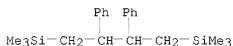


RN 61283-79-2 CAPLUS  
 CN Silane, trimethyl(4-methyl-2,4-diphenylpentyl)- (9CI) (CA INDEX NAME)



L3 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Lithiation of vinylic metalloids gives anion-radicals which, if quenched quickly, give synthetically-useful bimol. coupling. Thus, treating  $\text{Ph}_2\text{Si}(\text{CH}:\text{CH}_2)_2$  with 2 equivalent Li in  $\text{Me}_3\text{COH}-\text{THF}$  gave 50% 1,1-diphenylsilacyclopentane and 50%  $\text{Et}_2\text{SiPh}_2$ .  $\text{Ph}_3\text{M}(\text{CH}:\text{CH}_2)$  ( $\text{M} = \text{Si}, \text{Ge}$ ) gave either  $\alpha$ - or  $\beta$ -coupling according to the stabilization of the intermediate radical anion.  $\text{Ph}_3\text{Sn}(\text{CH}:\text{CH}_2)$  gave only  $\text{Ph}_3\text{SnSnPh}_3$  when treated with K mirror at  $-78^\circ$ . Polymerization is suppressed.

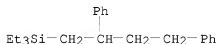
ACCESSION NUMBER: 1973:159767 CAPLUS  
 DOCUMENT NUMBER: 78:159767  
 ORIGINAL REFERENCE NO.: 78:25659a,25662a  
 TITLE: Chemistry of alkali metal-unsaturated hydrocarbon adducts. IX. Radical-anionic coupling of Group IV organometalloidal compounds  
 AUTHOR(S): Eisch, John J.; Gupta, Goutam  
 CORPORATE SOURCE: Dep. Chem., State Univ. New York, Binghamton, NY, USA  
 SOURCE: Journal of Organometallic Chemistry (1973), 50(1), C23-C25  
 CODEN: JORCAI; ISSN: 0022-328X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 41115-16-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 41115-16-6 CAPLUS  
 CN Silane, (2,3-diphenyl-1,4-butanediyl)bis(trimethyl- (9CI) (CA INDEX NAME)



L3 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB A sealed tube with  $\text{Et}_3\text{GeLi}$  from 11.38 g. ( $\text{Et}_3\text{Ge}$ ) $_2\text{Hg}$  and 1 g. Li, in  $\text{C}_6\text{H}_6$ , in the presence of 300 ml. condensed  $\text{C}_2\text{H}_4$  (addition of the olefin repeated twice), kept overnight gave 67.8%  $\text{Et}_4\text{Ge}$ . Reaction of  $\text{Et}_3\text{SiLi}$  and  $\text{CH}_2:\text{CH}_2$  gave 43%  $\text{Et}_4\text{Si}$ ; with  $\text{MeCH}:\text{CH}_2$  the yield of  $\text{Et}_3\text{PrSi}$  was 36%.  $\text{Et}_3\text{SiLi}$  in  $\text{C}_6\text{H}_6$  heated with 1-hexene 8 hrs. at  $50^\circ$  gave 16.3%  $\text{C}_6\text{H}_{13}\text{SiEt}_3$ , b200  $171-6^\circ$ ; similar reaction at  $90^\circ$  21 hrs. gave 8.6%  $\text{C}_6\text{H}_{13}\text{GeEt}_3$ , b20  $117^\circ$ , n20D 1.4580.  $\text{Et}_3\text{GeLi}$  and  $\text{C}_2\text{H}_4$  kept 3 days at room temperature, and  $\text{Et}_3\text{GeBr}$  (free of O) added, reacted with heat evolution to give rapidly 91% LiBr and 69.4% ( $\text{Et}_3\text{GeCH}_2$ ) $_2$ , b1  $110-12^\circ$ , 1.4780.  $\text{PhCH}:\text{CH}_2$  and  $\text{Et}_3\text{SiLi}$  in  $\text{C}_6\text{H}_6$  reacted at room temperature to give in 1 day 23.5%  $\text{PhCH}_2\text{CH}_2\text{SiEt}_3$ , b1  $105-7^\circ$ , and 36.2% 1-triethylsilyl-2,4-diphenylbutane, b1  $160-2^\circ$ . Similarly,  $\text{Et}_3\text{GeLi}$  gave  $\text{Et}_3\text{GeCH}_2\text{CH}_2\text{Ph}$ , b1.5  $107^\circ$ , 1.5078. Stilbene and  $\text{Et}_3\text{GeLi}$  in  $\text{C}_6\text{H}_6$  gave 50% ( $\text{Et}_3\text{GeCHPh}$ ) $_2$ , b1.5  $148-9^\circ$ , 1.5550.  $\text{PhC.tplbond.CPh}$  and  $\text{Et}_3\text{GeLi}$

gave Et<sub>3</sub>GeCPh:CHPh, b1 140°, 1.5750. An equimolar mixture of stilbene and Et<sub>3</sub>GeLi treated with Et<sub>3</sub>GeBr gave 29.4% (Et<sub>3</sub>GeCPhH)<sub>2</sub>, m. 81-2°. Similarly was prepared Et<sub>3</sub>GeCPh:CHGeEt<sub>3</sub>, b1 91-3°, 1.5120, and Et<sub>3</sub>GeCPh:-CPhGeEt<sub>3</sub>, m. 64°. Et<sub>3</sub>GeLi in C<sub>6</sub>H<sub>6</sub> and Ph<sub>2</sub>CO in 2 days at room temperature followed by an aqueous treatment gave 44.2% Et<sub>3</sub>GeCPh<sub>2</sub>OH, b1 143-5°, 1.5770.

ACCESSION NUMBER: 1969:29022 CAPLUS  
DOCUMENT NUMBER: 70:29022  
ORIGINAL REFERENCE NO.: 70:5437a,5440a  
TITLE: Addition of triethylsilyl- and triethylgermyllithium to unsaturated bonds  
AUTHOR(S): Vyazankin, N. S.; Gladyshev, E. N.; Arkhangel'skaya, E. A.; Razuvaev, G. A.; Korneva, S. P.  
CORPORATE SOURCE: Lab. Stabil. Polim., Gorki, USSR  
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1968), (9), 2081-5  
CODEN: IASKA6; ISSN: 0002-3353  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
IT 21184-10-1P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 21184-10-1 CAPLUS  
CN Silane, (2,4-diphenylbutyl)triethyl- (8CI) (CA INDEX NAME)



L3 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2008 ACS ON STN  
AB The addition of Ph<sub>3</sub>SiLi (I) to trans-stilbene (II) yielded a variety of products, from which [Ph<sub>3</sub>Si(Ph)CH]<sub>2</sub> (III) and Ph<sub>3</sub>Si(Ph)CHCHPhCHPhCH<sub>2</sub>Ph (IV) have been isolated and identified. In connection with the structure proof of these compds. the identity of (PhCH<sub>2</sub>CHPh)<sub>2</sub> (V), m. 89-91°, has been confirmed by several varied syntheses. I from 25.2 g. (Ph<sub>2</sub>Si)<sub>2</sub> and 0.4 g. Li in 100 cc. (CH<sub>2</sub>OMe)<sub>2</sub> treated with 18.0 g. II in 150 cc. C<sub>6</sub>H<sub>6</sub>, the excess Li removed, the mixture stirred 24 hrs. at room temperature, hydrolyzed with H<sub>2</sub>O, and the white solid precipitate (10 g.) recrystd. twice from C<sub>6</sub>H<sub>6</sub> yielded 9.0 g. III, m. 250-2°; the aqueous layer of the filtrate extracted 3 times with 100-cc. portions C<sub>6</sub>H<sub>6</sub>, the combined non-aqueous solns. dried and evaporated in vacuo, the residual oily solid recrystd. from ligroine (b. 75-115°), and the crude product again recrystd. yielded 7.4 g. IV, white crystals, m. 155-7°; the mother liquors evaporated to dryness gave a viscous pale yellow sirup which could be distilled in part at 130-70° and 0.7mm. I (0.026 mole) treated with 0.013 mole II, and the mixture stirred 0.5 hr. and then hydrolyzed gave only 2% III, m. 250-2°, and 16% IV, m. 154-7°, together with much polymeric material. A similar reaction in a min. of (CH<sub>2</sub>OMe)<sub>2</sub> diluted with 8 vols. Et<sub>2</sub>O gave no III and only 15% IV. I (0.011 mole) in 13 cc. (CH<sub>2</sub>OMe)<sub>2</sub> treated with 1.0 g. tolan in 15 cc. C<sub>6</sub>H<sub>6</sub>, and the dark red-black mixture stirred 0.5 hr. and hydrolyzed gave 0.31 g. III, m. 250-2°. III (2.0 g.), 55 cc. dioxane, 25 cc. Methyl Cellosolve, 2.0 g. KOH, and 3 cc. H<sub>2</sub>O refluxed 5.5 hrs., the solution evaporated to dryness in vacuo, the residue neutralized with dilute HCl and dissolved in Et<sub>2</sub>O, the solution dried and evaporated to dryness in vacuo, and the residue recrystd. from ligroine (b. 60-70°) yielded 1.25 g. Ph<sub>3</sub>SiOH, m. 149-51°; the mother liquor evaporated to dryness and the residue recrystd. from aqueous EtOH yielded

0.35 g. (PhCH<sub>2</sub>)<sub>2</sub>, m. 51-2°. Ph<sub>3</sub>SiCHBrPh (VI) (5.0 g.) in 35 cc. C<sub>6</sub>H<sub>6</sub> refluxed with 0.5 g. Na, the mixture treated with 35 cc. xylene, the C<sub>6</sub>H<sub>6</sub> distilled off to 115° distillation temperature, the residual dark brown solution

refluxed 12 hrs., hydrolyzed cautiously with H<sub>2</sub>O, neutralized with acid, and filtered, and the filter residue (0.75 g.) recrystd. from PhMe-ligroine (b. 90-100) gave III, m. 249-52°; the xylene layer of the filtrate gave an addnl. 0.34 g. III, and 0.34 g. compound, m. 235-8°, presumably a 2nd isomer of III, and 2.0 g. unchanged VI. Tetraphenylthiophene (5.0 g.) reduced with Na and AmOH by the method of Bergmann (C.A. 30, 4857.9) yielded 1.65 g. 1,2-diphenyl-3-benzylhydrindene (VII), m. 181-2°, and 1.04 g. V, white needles, m. 89-91° (from MeOH). (PhCH:CHPh)<sub>2</sub> (VIII), m. 183-4°, (0.7 g.) in 25 cc. refluxing AmOH treated during 2 hrs. with 2.0 g. Na, the mixture poured into excess 50% AcOH, and the precipitate (0.35 g.) recrystd. from 2:1 EtOH-CHCl<sub>3</sub> yielded 0.23 g. VII, m. 180-2°; the filtrate steam distilled, and the gummy distillation residue recrystd. from MeOH yielded 0.25 g. V, white needles,

m. 88-90°. VIII (3.0 g.) in 30 cc. Et<sub>2</sub>O, 10 cc. (CH<sub>2</sub>OMe)<sub>2</sub>, and 20 cc. C<sub>6</sub>H<sub>6</sub> stirred 3 hrs. with 0.5 g. Li and the dark brown solution poured rapidly into EtOH yielded 0.93 g. VII, m. 180-2°; the filtrate worked up gave 0.90 g. V, m. 89-91°. VIII (0.35 g.) in 35 cc. pure dioxane hydrogenated 22 hrs. at 1300 lb. pressure over Raney Ni gave 0.17 g. unchanged VIII, m. 183-4°, and 0.21 g. white needles which recrystd. from MeOH yielded 0.17 g. V, m. 89-90°.

ACCESSION NUMBER: 1956:44510 CAPLUS  
DOCUMENT NUMBER: 50:44510  
ORIGINAL REFERENCE NO.: 50:8591c-1  
TITLE: The reactions of triphenylsilyllithium with stilbene  
AUTHOR(S): Brook, A. G.; Tai, K. M.; Gilman, Henry  
CORPORATE SOURCE: Iowa State Coll., Ames  
SOURCE: Journal of the American Chemical Society (1955), 77, 6219-21

CODEN: JACSAT; ISSN: 0002-7863

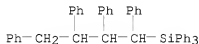
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

IT 18822-25-8P, Silane, triphenyl(1,2,3,4-tetraphenylbutyl)-

RL: PREP (Preparation)  
(preparation of)

RN 18822-25-8 CAPLUS

CN Silane, triphenyl(1,2,3,4-tetraphenylbutyl)- (8CI) (CA INDEX NAME)



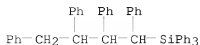
L3 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
AB cf. C.A. 49, 10977d. Electrophilic substitution in the 5-OH (I), 5-AcNH (II), and 5-NH<sub>2</sub> (III) derivs. of benzothiophene (IV) was found to occur at the 4-position. This is analogous to the behavior of similarly substituted naphthalene derivs. Unlike 2-C<sub>10</sub>H<sub>7</sub>OH, I undergoes reactions at both positions ortho to the OH group under nearly the same conditions. When the S atom in IV is oxidized to the sulfone stage, orientation in the benzene ring is changed from predominant 4-substitution to predominant 6-substitution. The results are rationalized in terms of the current theory. 2,5-Cl(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>CHO (V) (66 g.), 57 g. HC(OEt)<sub>3</sub>, 0.75 g. NH<sub>4</sub>Cl, and 63 cc. dry EtOH refluxed 0.5 h. yielded 82 g. Et acetal of V, b<sub>2</sub>-3 142-5°, and a middle fraction, b<sub>2</sub> 142-3°, n<sub>D</sub>20 1.5312, d<sub>31</sub> 1.2344. V in EtOH added with stirring to 1 equivalent Na<sub>2</sub>S solution, and the

mixture treated with  $\text{ClCH}_2\text{CO}_2\text{Na}$  or  $\text{ClCH}_2\text{CO}_2\text{Et}$  yielded 22-38% 5-nitro-2-benzothiophenecarboxylic acid, which decarboxylated and extracted with Et<sub>2</sub>O gave 5-nitrobenzothiophene (VI). VI (5.0 g.) in 100 cc. absolute EtOH hydrogenated 1 h. over 0.5 g. 5% Pd-C gave III. I (4.1 g.) in 35 cc. C<sub>6</sub>H<sub>6</sub> refluxed 1 h. with 2.8 g. Ac<sub>2</sub>O, the solvent removed, and the residue (5.1 g.) recrystd. from EtOH yielded the acetate (VII) of I, m. 69°. II (7.3 g.) in 30 cc. AcOH treated with cooling with 2.5 cc. concentrated HNO<sub>3</sub>, the mixture kept 4 h. at room temperature and poured into excess ice and H<sub>2</sub>O, and the crude precipitate (7.8 g.) recrystd. from 50 cc. EtOH gave 6.3 g. 4-NO<sub>2</sub> derivative (VIII) of II, m. 131-2°. VIII (0.25 g.) in 3 cc. AcOH heated 1 h. on the steam bath with 1-3 cc. 30% H<sub>2</sub>O<sub>2</sub>, the mixture heated 1 h. on the steam bath and diluted with excess H<sub>2</sub>O, and the precipitate (67%) recrystd. twice from EtOH yielded the 1,1-dioxide of VIII, decomposed at 227°. VIII (3.5 g.) heated 15 min. with an equivalent NaOH in 55 cc. 90% EtOH, the mixture treated with 75 cc. H<sub>2</sub>O, and the product (2.8 g.) recrystd. from MeOH gave 5-amino-4-nitrobenzothiophene (IX), yellow needles, m. 190°. IX (4.1 g.) in 100 cc. 50% by volume H<sub>2</sub>SO<sub>4</sub> diazotized with 1.5 g. NaNO<sub>2</sub> at 0°, the mixture treated with 8 cc. 50% aqueous H<sub>3</sub>PO<sub>2</sub>, the solution kept at 0° overnight and then 8 h. at room temperature and extracted with 300 cc. CHCl<sub>3</sub>, the extract washed with 10% aqueous NaOH and evaporated, and the residue (2.55 g.) recrystd. from Skellysolve C gave 1.95 g. 4-NO<sub>2</sub> derivative (X) of IV, m. 80-2°. X prepared by the method of Fries, et al. (C.A. 31, 1402.4), and the product (77%) recrystd. from Skellysolve C m. 84-5°. X oxidized in the usual manner yielded 85% 1,1-dioxide, m. 177-8° (from EtOH). X (2.0 g.) in 30 cc. EtOH hydrogenated 2 h. over 0.2 g. 5% Pd-C gave 4-aminobenzothiophene (XI). Only X prepared from IX could be hydrogenated. XI (0.3 g.) in 36 cc. H<sub>2</sub>O and 2 cc. H<sub>2</sub>SO<sub>4</sub> diazotized with an equimolar amount NaNO<sub>2</sub>, the resulting diazonium salt heated 0.5 h. at 90° and cooled, the mixture filtered hot, and then cooled, and the solid deposit (0.15 g.) recrystd. from Skellysolve C gave 0.05 g. product, m. 75-8°; the insol. tars extracted with hot H<sub>2</sub>O, and the aqueous filtrates with Et<sub>2</sub>O gave an addnl. 0.06 g. 4-hydroxybenzothiophene (XII); the crude XII recrystd. gave material, m. 78-9°. XII (15 mg.) gave 7 mg. aryloxyacetic acid derivative, m. 149-50° (from H<sub>2</sub>O). III (2.4 g.) in 10 cc. AcOH treated with 2.7 g. Br in 10% AcOH, the mixture warmed a few min. on the steam bath, diluted with 75 cc. H<sub>2</sub>O, decolorized with Norit A in 100 cc. boiling dilute HCl and precipitated with Na<sub>2</sub>CO<sub>3</sub> or NH<sub>4</sub>OH, and the precipitate (2.4 g.) recrystd. once gave 5-amino-4-bromobenzothiophene (XIII), m. 69-71°. 5-Acetamido-4-bromobenzothiophene (XIV) (0.15 g.) refluxed 0.5 h. in 20 cc. concentrated HCl yielded 0.10 g. XIII, m. 70-1°. II (0.50 g.) and 0.5 g. NaOAc in 5 cc. AcOH treated with 0.42 g. Br in 4 cc. AcOH, the solution heated 15 min. on the steam bath and diluted with H<sub>2</sub>O, and the precipitate (0.58 g.) triturated with concentrated HCl followed by washing with Me<sub>2</sub>CO and NH<sub>4</sub>OH gave 0.35 g. XI, m. 139-40°; in the absence of NaOAc, 0.89 g. XIV.HBr, m. 153-6°, was obtained. XIII (0.5 g.) in 20 cc. 50% by volume H<sub>2</sub>SO<sub>4</sub> diazotized at 0° with an equivalent amount NaNO<sub>2</sub>, the solution treated 24 h. at 0° and an addnl. 24 h. at room temperature with 10 cc. 50% H<sub>3</sub>PO<sub>2</sub>, extracted with Et<sub>2</sub>O, and steam distilled, and the resulting oily (0.10 g.) 4-bromobenzothiophene (XV) oxidized gave 0.06 g. 1,1-dioxide (XVI) of XV, m. 141-3° (from aqueous EtOH or C<sub>6</sub>H<sub>6</sub>). XI (0.50 g.) in 4 cc. dilute HBr converted through the diazonium salt with CuBr and 0.52 g. NaBr to 0.09 g. XV, and this oxidized gave 0.11 g. XVI, m. 143-4°. I (0.50 g.) in 8 cc. AcOH treated with 5 cc. AcOH containing 0.54 g. Br and the resulting product (0.75 g.) recrystd. twice from Skellysolve B gave the 4-Br derivative (XVII) of I, m. 109-10°. XIII (0.5 g.) in 10 cc. 50% H<sub>2</sub>SO<sub>4</sub> diazotized, the salt solution heated to boiling and extracted with Et<sub>2</sub>O,

the extract reextd. with 10% aqueous NaOH, and the product (0.11 g.) recrystd. from Skellysolve B gave XVII, m. 108-9°. I (0.45 g.) and 0.9 g. NaOAc in 5 cc. AcOH treated at 10° with 0.96 g. Br, the product dissolved in Et2O, the solution extracted with 10% aqueous NaOH, the extract treated with Norit A, and the purified product (0.48 g.) recrystd. several times from EtOH and H2O gave 3,4-di-Br derivative of I, m. 93-4°. VII (0.50 g.) in 3 cc. AcOH treated with 0.46 g. Br in 5 cc. AcOH, the mixture warmed 0.5 h. on the steam bath and diluted with H2O, the precipitate extracted from Et2O with 10% aqueous NaOH, and the neutral residue recrystd. gave the acetate (XVIII) of 3-bromo-5-hydroxybenzothiophene (XIX), white needles, m. 100.5-1.0°; the phenolic compound recrystd. from Skellysolve B and from EtOH and H2O gave XIX, m. 137.5-8.0°. XVIII hydrolyzed with dilute aqueous NaOH yielded 89% XIX, fine white powder, m. 136-7° with previous melting at 132°, and solidifying to needles at 134°. In the presence of 0.5 g. NaOAc in the AcOH the yield of 5-acetamido-3-bromobenzothiophene was 82%; this product was contaminated with a bright red impurity which was not removed by crystallization but was destroyed during the saponification of the compound XIX, m. 134-6°, was also prepared in 25% yield by diazotizing 0.08 g. 5-amino-3-bromobenzothiophene in 15 cc. 50% H2SO4 at 0° and boiling the solution Br (0.093 g.) in 1 cc. AcOH added to 0.134 g. XIX in 3 cc. AcOH, and the resulting crude product recrystd. from Skellysolve B gave 0.05 g. 3,4-di-Br derivative of I, m. 146-8°. Na (0.36 g.) in 50 cc. EtOH and 2.3 g. I and 4 cc. allyl bromide refluxed 15 min., the mixture diluted with Et2O, and extracted with 10% aqueous NaOH, and the Et2O solution evaporated gave 2.7 g. 5-allyloxybenzothiophene (XX). XX (2.7 g.) refluxed 1 h. in 15 cc. PhNMe2, the mixture dissolved in 50 cc. C6H6, the solution extracted with dilute HCl, and the rearranged product extracted with three 25-cc. portions Claisen alkali, and purified by steam distillation gave 1.80 g. 4-allyl-5-hydroxybenzothiophene (XXII), b15 183-5°;  $\alpha$ -naphthylurethane, m. 166-8°. 4-Allyl-5-allyloxybenzothiophene (XIII) (1.85 g.) refluxed 9.5 h. in 20 cc. PhNMe2 gave 0.95 g. XXIII and 0.60 g. 4,6-diallyl-5-hydroxybenzothiophene (XXIV) b2 155-60°; a similar run with 4 h. heating gave 63% XXIII and 23% XXIV, m. 152-4° (from Skellysolve C). The 5-hydroxybenzothiophene derivs. gave with p-diazobenzenesulfonate the following colors: I, red; XVII, red-brown; XXI, red; XXIV, very pale yellow (no reaction). 5-Nitrobenzothiophene oxidized to the 1,1-dioxide, reduced to the amine, a drop of H2SO4 added to a slurry of 5.0 g. amine in 10 cc. Ac2O, the mixture filtered, and the cake washed with H2O and recrystd. from EtOH gave 5.2 g. 1,1-dioxide (XXV) of III, m. 225-6°. II (7.9 g.) in 80 cc. AcOH treated 24 h. at room temperature with 40 cc. 30% H2O2 and the mixture diluted with H2O gave 6.7 g. 1,1-dioxide (XXVI) of II, m. 208-13°. XXV (0.18 g.) in 5 cc. EtOH hydrogenated 2 h. at atmospheric pressure over 0.02 g. 5% Pd-C, the solvent evaporated, and the residue recrystd. from EtOH gave 0.18 g. 5-amino-2,3-dihydrobenzothiophene 1,1-dioxide, m. 147-7.5° (from EtOH). XXV (0.90 g.) in 20 cc. H2SO4 (50%) diazotized at 0° with an equimolar amount of NaNO2, the mixture refluxed 15 min. and filtered hot through celite, the filtrate extracted with Et2O, the Et2O extract reextd. with 10% aqueous NaOH, and the alkaline extract acidified gave 0.31 g. 1,1-dioxide of I, m. 152-2.5° (from H2O with Norit). Fuming HNO3 (d. 1.50) (10 cc.) treated slowly with stirring at 0° with 4.0 g. XXVI, the mixture held 0.5 h. at 10°, and poured into 500 cc. cold H2O, and the precipitate (4.2 g.) recrystd. from 600 cc. EtOH gave 3.3 g. 6-NO2 derivative (XXVII) of XXVI, m. 215-16°. XXVII

(3.3 g.) in 60 cc. AcOH and 50 cc. concentrated HCl refluxed 0.5 h., the mixture filtered, and the yellow filter residue (2.8 g.) recrystd. from large amts. of Me2CO gave the 6-NO2 derivative (XXVIII) of XXV, fine yellow needles, which gradually decomposed above 270° turning to a blackened mass at 186-90°. XXVIII (0.50 g.) added at -12° to 0.25 g. NaNO2 in 20 cc. concentrated H2SO4, the mixture diluted slowly with ice at -10° to 100 cc., treated with 25 cc. cold H3PO2 and a few small crystals CuSO4, kept 4 h. at 10°, and filtered off, the cake washed with aqueous NaHCO3 and extracted with 25 cc. C6H6, and the C6H6 extract evaporated gave 0.12 g. 6-nitrobenzothiophene 1,1-dioxide, m. 181-2° (from EtOH and C6H6). Br (1.6 g.) in 16 cc. AcOH added with stirring at 65° to 1.81 g. XXV in 35 cc. AcOH containing 1.8 g. NaOAc and the mixture cooled gave 2.3 g. 6-Br derivative (XXIX) of XXV, decomposed at 229-31° (from EtOH and sublimed at 2 mm.). XXIX (1.1 g.) in 20 cc. warm 50% H2SO4 diazotized at 0° with 0.5 g. NaNO2, the diazonium salt reduced with 20 cc. 50% aqueous H3PO2 and a few crystals of CuSO4 during 3 h. at 10°, the yellow precipitate extracted continuously with 50 cc. Et2OH, and the extract conductivity to 15 cc. gave 0.55 g. pure 6-bromobenzothiophene 1,1-dioxide (XXX), m. 139°; further concentrated of the mother liquors gave an addnl. 6.75 g. less pure product. 6-Nitrobenzothiophene 1,1-dioxide (2.1 g.) in 50 cc. EtOH hydrogenated over 0.2 g. 5% Pd-C during 1 h., the mixture concentrated to 30 cc., and the resulting yellow needles (1.4 g.) recrystd. from EtOH gave 6-amino-2,3-dihydrobenzothiophene 1,1-dioxide (XXXI), m. 198-200°. XXX (2.45 g.) in 50 cc. EtOH hydrogenated over 0.2 g. 5% Pd-C, and the crude product (1.5 g.) recrystd. from EtOH gave 1.2 g. 6-bromo-2,3-dihydrobenzothiophene 1,1-dioxide (XXXII), m. 142-4°. XXXI (0.50 g.) in 10 cc. 50% H2SO4 diazotized with 0.20 g. NaNO2, the diazonium salt solution added to 50 cc. boiling suspension of CuBr, the mixture boiled 10 min. and filtered, and the solids extracted with Me2CO gave 0.45 g. XXXII, m. 142-3° (from EtOH).

ACCESSION NUMBER: 1956:44509 CAPLUS  
DOCUMENT NUMBER: 50:44509  
ORIGINAL REFERENCE NO.: 50:85881, 8589a-i, 8590a-i, 8591a-c  
TITLE: Benzothiophene chemistry. VII. Substitution reactions of 5-hydroxy- and 5-aminobenzothiophene derivatives  
AUTHOR(S): Bordwell, F. G.; Stange, Hugo  
CORPORATE SOURCE: Northwestern Univ., Evanston, IL  
SOURCE: Journal of the American Chemical Society (1955), 77, 5939-44  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
IT 18822-25-8P, Silane, triphenyl(1,2,3,4-tetraphenylbutyl)-  
RL: PREP (Preparation)  
(preparation of)  
RN 18822-25-8 CAPLUS  
CN Silane, triphenyl(1,2,3,4-tetraphenylbutyl)- (8CI) (CA INDEX NAME)



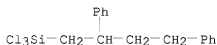
L3 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN  
AB To 0.5 mole SiHCl3 in a bomb, C2H4 was introduced to a pressure of 500 lb./sq. in. and the mixture kept 8 hrs. at 270-388°. When the mixture was cooled to room temperature the pressure had dropped to 225 lb./sq. in. The



following products were isolated and identified: 4 g. boiling below 97°, mainly SiHCl<sub>3</sub>; 31.5 g. EtSiCl<sub>3</sub>, b. 98-100°; 19.5 g. BuSiCl<sub>3</sub>, b. 147-9°; 7.0 g. C<sub>6</sub>H<sub>13</sub>SiCl<sub>3</sub>, b. 190°; and 4.5 g. mixture of C<sub>8</sub>H<sub>17</sub>SiCl<sub>3</sub> and C<sub>10</sub>H<sub>21</sub>SiCl<sub>3</sub>, b<sub>32</sub> 150-65°. In other examples given the following compds. were identified: AmSiCl<sub>3</sub>, b. 163-4°; BuEtSiCl<sub>2</sub>, b. 169-70°; and PrCH:CHSiCl<sub>3</sub>, b. 168-71°. These materials may be used in new coatings and other compositions.

ACCESSION NUMBER: 1956:40498 CAPLUS  
 DOCUMENT NUMBER: 50:40498  
 ORIGINAL REFERENCE NO.: 50:7844c-e  
 TITLE: Reaction of silanes with unsaturated aliphatic compounds  
 INVENTOR(S): MacKenzie, Charles A.; Spialter, Leonard; Schoffman, Milton  
 PATENT ASSIGNEE(S): Montclair Research Corp.; Ellis-Foster Co.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	US 2721873		19551025	US 1952-276042	19520311
IT	17995-62-9P, Silane, trichloro(2,4-diphenylbutyl)- RL: PREP (Preparation) (preparation of)				
RN	17995-62-9 CAPLUS				
CN	Silane, trichloro(2,4-diphenylbutyl)- (8CI) (CA INDEX NAME)				



=> log off  
 ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF  
 LOGOFF? (Y)/N/HOLD:y  
 STN INTERNATIONAL LOGOFF AT 15:28:11 ON 08 MAY 2008